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ABSTRACT

Project emphasis during the 1975-76 school year is described in this evaluation report was on implementation, operation, and study of the Far West Laboratory Experience-Based Career Education (FWL-EBCE) program at sites under the control of the respective local education agencies. Three emerging programs designated as pilots for the FWL-EBCE model are described: Highland High School EBCE (Salt Lake City, Utah); Pacific Horizons High School (Stockton, California); and Edison High School EBCE (Fresno, California). The 3-part evaluation conducted at the pilot sites is outlined: Study of the implementation process, assessment of student outcomes, and formative feedback to local staff. Evaluation results reported focus on the implementation and characteristics of the three pilot programs including discussion of program ratings; student, parent, and resource data; student-resource interaction; information for program improvement; and students' participation in career-oriented activities. In addition to information from pilot sites, data on students (demography, plans for school and work, attitude toward school) are reported on other FWL-EBCE sites: The Far West High School demonstration site in Oakland, California, and two small market-demand sites, Canyon High School EBCE in Saugus, California, and Maynard Evans High School Community-Based Career Education in Orlando, Florida. Followup information is reported from graduates of the Far West School in Oakland. Overall conclusions are discussed concerning program features, program implementation, program outcomes, and student outcomes. (TA)

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EXPERIENCE-BASED CAREER EDUCATION
FINAL EVALUATION REPORT
FY1976

Jill Evenson

Robert Spotts

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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November 1976

Far West Laboratory for

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EXPERIENCE-BASED CAREER EDUCATION

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INTRODUCTION

The test and evaluation of the FWL-EBCE model in a controlled environment took place at Far West School in 1974-75. At that time Far West Laboratory operated the school: employed instructional staff; controlled the curriculum; and selected students from applicants. The evaluation results for this performance test were reported in the Final Evaluation Report FY1975. Project emphasis shifted during 1975-76 to the implementation, operation, and study of the FWL-EBCE program at sites under the control of the respective local education agencies. In particular, three emerging programs were designated as "pilots" for the FWL-EBCE model: Highland High School EBCE (Salt Lake City, Utah); Pacific Horizons High School (Stockton, California); and Edison High School EBCE (Fresno, California). These three sites planned programs with sufficient fidelity to the full FWL-EBCE model and projected adequate size of student body to enable meaningful program evaluation.

The evaluation at the pilot sites during 1975-76 was divided into three areas:

1. study of the implementation process;
2. assessment of student outcomes; and
3. formative feedback to local staff.

The study of the implementation process was intended to provide information vital to the proper interpretation of outcomes data. The assessment of outcomes data was intended to develop additional information on the potential of FWL-EBCE as an alternative curriculum for high school youth. The feedback of information to local staffs was to provide a basis for their future program improvement. Thus, the evaluation at each pilot site was tailored to provide information of the kind desired by that local staff; much of the information reported here is based on data collected in response to local staff interest.

The evaluation results presented here focus on the implementation and characteristics of the three pilot programs. In addition to information from pilot sites, data on students (i.e., demography, plans for school and work, attitude toward school) are reported on other FWL-EBCE sites: the Far West High School "demonstration site" in Oakland; and two small "market-demand sites," Canyon High School EBCE in Saugus, California, and Maynard Evans High School

Community-Based Career Education in Orlando, Florida. Follow-up information is reported from graduates of the Far West School in Oakland.

Instrumentation for the collection of data from sites is largely that developed for (and used in) the previous year's evaluation of the program at Far West School. As such, it is described in the FWL-EBCE Final Evaluation Report FY1975. Some instruments were modified as a result of the 1974-75 evaluation effort. A copy and a discussion of each instrument are available in the FWL-EBCE publication, Values and Information, An Approach to Evaluation Planning. Table 1 presents the plan for collection of data from the FWL-EBCE pilot sites during 1975-76.

Because each EBCE program is implemented in a unique environment, the reader is cautioned against comparing student outcomes and ranking the relative success of the programs described.

TABLE 1
PLAN FOR DATA COLLECTION AT
PILOT SITES, 1975-76

TOPICS	SOURCE	INSTRUMENT	FREQUENCY
Attitude Toward School, Learning	Students	Student Background Summary	Beginning of Year
	Students	School Opinion Scales	End of Year
	Students	Student Plans and Perception Summary	End of Year
Future Plans	Students	Student Plans and Perception Summary	End of Year
Career Development	Students	Career Oriented Activities Checklist	End of Year
School-related Change and Growth	Students	Student Plans and Perception Summary	End of Year
	Parents	Parent Opinion Survey	End of Year
Perception of Current Program	Students	Student Plans and Perceptions Summary	End of Year
	Students	School Opinion Scales	End of Year
Perceptions of EBCE	Students	EBCE Perceptions Survey	End of Year
	Parents	Parent Opinion Survey	End of Year
	Resources	Resource Opinion Survey	End of year
	Staff	Staff Opinion Survey	End of Year
Progress Toward Graduation	School Director	Credits	End of Year
Demography: Reason for Applying	Students	Student Background Summary	Beginning of Year
Characteristics of Students at Entry	School Director	Student Files	End of Year
Enrollment	School Director	Enrollment Summary	End of Year
Students' Program Activities	Students	Student Activity Report	Weekly
Resources' Participation	Students	Student Activity Report	Weekly
Planned Fidelity of Program	Project TAT Staff	Rating of LEA-Adoption Congruence	Beginning of Year
Operating Fidelity of Program	Project TAT Staff	Rating of LEA-Adoption Congruence	End of Year

PILOT SITE DATA

Within this section, two approaches are used to present information about pilot sites. Each of the sites has its own unique characteristics and developmental history; this results in differences in the amounts and types of evaluation assistance provided to the sites, in variations in the evaluation data collected at the sites, and in differences in student outcomes recorded at the sites. It is recognized that if the three sites are based on the same educational model they should have many outcomes in common. The evaluation, therefore, has had to strike a balance between the reporting of each site as an independent entity and as a part of a larger group of FWL-EBCE sites. To this end, this section has been organized to present first the information on each site that is largely unique to the site including descriptions of the site (such as student demography and baseline attitudes), implementation history, and ratings of success of program elements. Each of these three site-specific portions ends with a focused study on one aspect of the program. The topics addressed in the focused studies have, for the most part, grown out of the individual program concerns at each site, and, therefore, become a logical conclusion for the site-specific data presentations.

Following the presentation of data on the individual sites, a sub-section discusses common outcomes across the programs. In this portion data are presented by source -- student, parent, or resource -- and data for each topic are presented in parallel for each pilot site.

Highland High School EBCE

Description. Highland High School EBCE is a full-time, alternative learning program for students (grades 11-12) within the attendance area of that high school. Its organizational structure is best described as a "school within a school": it is physically located within a wing of the school building, and (as in the basic FWL-EBCE model) the EBCE program staff is responsible for the total learning program of the students. Enrollment in May, 1976 was 53 students; plans are to expand to 72 students in fall, 1976. Most students at Highland

High School are college-bound and are from white, middle-income families. Table 2 presents demographic and other information for the Highland EBCE students that were enrolled in May, 1976.

Implementation. Training of EBCE staff members was accomplished during summer, 1975, and Highland High School initiated the EBCE program in September, 1975. Additional on-site technical assistance was provided to the EBCE program by a FWL staff member when requested during the school year. Early program planning with Highland EBCE staff members established as a goal of implementation the close congruence of the program and the FWL-EBCE model. At the end of the school year, this staff member completed a rating of the congruence of the operating Highland program with the FWL-EBCE model. His judgments are shown in Table 3. Note that the program as implemented seems to reflect the model very closely, with the exception of flaws (i.e., ratings below 50%) perceived in the standards established for students' learning projects and the program design for students' supplementary (non-project) learning activities.

Information was collected on the satisfaction of local staff members with their implementation of the model during the year. They were asked to rate their extent of satisfaction with their program's operation in 15 process areas considered by FWL as essential to FWL-EBCE. Table 4 presents a summary of the information obtained. Several points are of interest:

1. Mean ratings by staff members were at or above the scale midpoint for every program process (indeed, only two item ratings out of the 75 were below midpoint).

2. Staff members were most satisfied with their program operation on a set of processes involving staff and resource interaction. Recruiting resources, preparing guides, and maintaining resources were ranked within the first six; their mean ratings were 4.0 or higher out of a possible 5.

3. Staff members were also satisfied with those processes within their program falling within the category of student and staff interaction [these processes received mean ratings between 3.4 (planning students' supplementary activities) and 4.0 (preparing students for activities with resources)].

4. While still positive, staff members were least satisfied with some of the processes that might be categorized as requiring interactions among staff members: organizing/managing the supplementary curriculum, orienting new students, and using packages (these items were ranked 11-14). However, two other such processes, recruiting new students and coordinating staff responsibilities, were ranked 3.5 (tie) with means of 4.2.

TABLE 2
DESCRIPTION OF
HIGHLAND HIGH SCHOOL EBCE PROGRAM

SETTING

Middle-income urban (city population approximately 250,000). Mainly white. High school (1,800 students) is one of four schools in the district totalling 8,000 enrollment.

PROGRAM

Full-time, alternative program offered within the high school, grades 11-12. Mostly Highland students, although open to students throughout district. Primary thrust is to facilitate career planning of students (mainly college-bound) through career-related experiences. Three LCs, skills specialist, director/resource analyst.

STUDENT DEMOGRAPHY

Number of students in end of year group: 52*

Grade	f	%
ninth	0	0
tenth	0	0
eleventh	22	42
twelfth	30	58
Sex		
male	27	52
female	25	48

Ethnic Group	f	%
American Indian	1	2
Black/Afro-American	0	0
Filipino	0	0
Chicano/Mexican-American	0	0
Puerto Rican	0	0
Other Latin-American	0	0
Oriental/Asian-American	1	2
White/Caucasian	49	96
Other	0	0

Median age of students (9-75): *17 years 1 month*

Parents' Education	Mother f	Mother %	Father f	Father %
Elementary school	1	2	2	4
Some high school training	3	6	1	2
High school diploma	10	20	14	28
Some college training	20	39	6	12
College degree	12	24	22	43
Some graduate school	3	6	2	4
Graduate school degree	2	4	4	8

Parents' Work Classification	Mother f	Mother %	Father f	Father %
1 Laborer, homemaker	17	34	1	2
2 Operative, service, military	2	4	3	6
3 Clerical, crafts, proprietor, protective	16	32	10	20
4 Farmer, sales, technical	4	8	12	24
5 Administrative, professional	11	22	25	49

STUDENT PLANS AND ATTITUDES AT ENTRY

Education and work emphasis--one year after high school

	%
Going to school, but not working	2
Going to school, but working part time	46
Working, but going to school part time	26
Working, not going to school	22
Other plans	4

Educational program--one year after high school

	%
None	14
Apprenticeship, or on-the-job training	10
Vocational, technical, trade or business school	18
Technical or vocational courses at junior college	4
Academic courses at a junior college	8
Four year college or university	47
Other educational program	2

Attitude toward school	last year %	before last year %
1 Disliked almost everything about it	10	10
2 Disliked more than liked it	19	19
3 Liked/disliked it about equally	31	27
4 Liked it more than disliked it	31	31
5 Liked almost everything about it	10	14
Mean	3.12	3.19
Standard Deviation	1.13	1.19

* *Data in this table are based on total number responding to the item. Most of the information came from 51 students who completed the demographic form.*

TABLE 3

FIDELITY OF HIGHLAND HIGH SCHOOL EBCE TO THE FWL-EBCE MODEL;
RATINGS BY THE FWL STAFF MEMBER PROVIDING SITE ASSISTANCE (MAY, 1976).

DIMENSION	ITEM	FIDELITY RATING (%)
Educational Goals		
	Career Development	90
	Life Skills	90
	Basic Skills	90
Characteristics of Resource Pool		
	Diversity	90
	Willingness to participate	90
	Provision of 1-1 learning	90
	Adaptability of site activities	90
	Involvement in planning and evaluating students' projects	-*
Characteristics of Students' Programs		
	Projects as core	90
	Involvement with community resources	90
	Standards set	30
	Supplementary learning design	25
	Peer interaction	50
	Criteria for credit	60
	Academic credit	60
Student Responsibility		
	Long-term planning	90
	Establishing learning-objectives and activities	90
	Selecting content	90
	Setting performance criteria	90
	Selecting resources	75
	Self evaluation	75

*Insufficient evidence to make a rating

TABLE 4

HIGHLAND EBCE STAFF'S SATISFACTION WITH
PROGRAM PROCESSES IN CRITICAL AREAS

PROCESS 5-point scale: 1=not at all satisfied 5=completely satisfied	Highland EBCE Staff N=5		
	Rank	Mean	S.D.
Recruiting resources	1.5	4.8	.40
Preparing resource guides	1.5	4.8	.40
Recruiting new students	3.5	4.2	.40
Coordinating staff responsibilities	3.5	4.2	.75
Preparing students for activities with resources	5.5	4.0	.00
Maintaining resources	5.5	4.0	.63
Assessing students' skills at entry	8.5	3.6	.49
Planning students' projects	8.5	3.6	.49
Monitoring students' progress	8.5	3.6	.49
Students' long-term planning	8.5	3.6	.80
Planning students' supplementary activities	12	3.4	.49
Organizing and managing the supplementary curriculum	12	3.4	.49
Orienting new students	12	3.4	.80
Using packages	14	3.2	.75
Preparing resources for activities with students	15	3.0	.00

5. The lowest ranked process was uniformly rated at scale midpoint by all staff members. This item (preparing resources for activities with students) is the exception to the high degree of satisfaction of staff with processes involving staff/resource interaction.

The data accumulated from Highland staff are consistent with the recorded judgment of the FWL staff member; that is:

- high degree of satisfaction with program quality in processes involving staff/resource interaction (reported by Highland staff) is consistent with high-fidelity in terms of characteristics of resource pool (reported by FWL staff member)
- fairly high degree of satisfaction with the quality of program processes involving student/staff interaction (reported by Highland staff) is consistent with moderate fidelity in terms of characteristics of students' programs (reported by FWL staff member)
- relatively low satisfaction with the organization and management of supplementary curriculum (reported by Highland staff) is consistent with low fidelity in supplementary curriculum design (reported by FWL staff member)
- overall, very high ratings of satisfaction with the quality of program processes (Highland staff) is consistent with overall high ratings of program/model congruence (reported by FWL staff member)

A third source of information on the program is the group of students enrolled. At the end of the school year, the students were asked to rate (on a five-point scale) how successful the program was for them in three categories: self-development (learning about oneself, learning to make decisions), career development (planning for and learning about careers), and general learning (academic skills, basic skills). In Table 5, these responses are aggregated and compared with the responses of EBCE staff members on parallel items. The mean ratings of the three categories have the same rank-ordering by students and staff. The magnitude of the ratings by staff and students are similar although the mean ratings by staff are somewhat higher in each case (no interpretation of this latter fact should be assigned inasmuch as students are rating individual success and staff members are rating group success). The ranking by both students and staff of highest success for activities related to self-development is consistent with the judgment by the FWL staff member of high program fidelity to FWL-EBCE in the area of "student responsibility." Relatively high mean ratings for each of the categories is also in agreement with

the FWL staff member's judgment of the program's educational goals. Overall, the information collected indicates that the Highland EBCE program should be considered representative of the FWL-EBCE concept -- that outcomes observed should be viewed as attributable to the FWL-EBCE model.

TABLE 5

RATINGS BY STUDENTS AND STAFF ON SUCCESS OF PROGRAM ACTIVITIES, HIGHLAND EBCE

Activity Categories	Highland EBCE		
	N items	Mean of item means (5-point scale)	
		Students N = 52	Staff N = 5
Self-development (learning about oneself, learning to make decisions)	2	4.3	4.6
Career development (planning for, learning about)	2	4.2	4.5
General Learning academic skills, basic skills)	2	3.8	3.9

Program Ratings. Table 5 indicated that both students and staff rated the extent of program success high in the EBCE goal-related areas of self-development, career development, and general learning. Additional information on the quality and quantity of student learning in the program was sought from students and their parents through end-of-year questionnaires.

On one item given to both groups, the student and his/her parents were asked to rate the amount of learning achieved by the student in each of twelve areas related to EBCE student outcome goals. The statistics (mean, standard deviation, and ranking) of the responses on each of the items are shown in Table 6. Two observations are noteworthy:

TABLE 6

STUDENTS' AND PARENTS' RATINGS OF
AMOUNT LEARNED IN HIGHLAND EBCE PROGRAM

LEARNING AREA 4-point scale: 1=Nothing 4=A Lot	Highland EBCE					
	STUDENT N=52			PARENT N=43		
	RANK	S.D.	MEAN	MEAN	S.D.	RANK
Improving skills in working with adults	1	.46	3.71	3.50	.81	2
Improving listening and speaking skills	2	.59	3.65	3.10	.90	9
Learning about careers and jobs	3.5	.73	3.59	3.80	.55	1
Thinking through and solving problems	3.5	.61	3.59	3.41	.75	3
Accepting many different ideas and backgrounds of people	5	.67	3.51	3.37	.83	4
Learning how to do a particular job	6	.63	3.35	3.35	.77	5
Planning for a career or careers	7	.76	3.31	3.33	.66	6
Learning job-seeking skills	8	.76	3.29	3.12	.79	8
Improving skills in working with other students	9	.93	3.16	3.00	.93	10
Improving writing skills	10	.82	3.12	3.15	.86	7
Improving reading skills	11	.91	2.98	2.80	.94	11
Improving math skills	12	1.11	2.12	2.18	.97	12

1. Students' and parents' rankings showed general agreement. They agreed in placing in top ranks (although with minor differences in order) the items on improving skills with adults, learning about careers, solving problems, and accepting different people. However, the students placed listening and speaking skills in second place, whereas the parents ranked it much lower. The parents appear to place a little more stress on the career aspects of the program while the students see personal growth as very important.

2. Improvement of reading, writing, and mathematics skills was rated relatively low compared with other areas. The ratings are still basically positive, however, with many students stating that they did learn a lot. For example, 39 students said that they learned either "some" or "a lot" in writing skills. The range in ratings on these items reflects the fact that this is a highly individualized program where some students may choose not to work in these areas or may not feel that they need improvement.

Information on possible changes perceived in the students as a result of EBCE was collected from both students and parents. Students were asked to list three ways in which they felt they had changed as a result of EBCE. Analysis of responses used a classification scheme developed for the previous EBCE programs at Far West School. Results are given in Table 7. Of the responses elicited, over two thirds fell into the categories of self-growth (such as responsibility or independence), or growth in interpersonal skills (with the former category the larger one). Slightly under one fifth of the responses related to growth in academic areas. Mentions of growth in such EBCE-related areas as career-awareness and future planning were very infrequent. The failure of students to volunteer changes in these two areas contrasts with their positive ratings obtained through scales (Table 5).

Each parent was given a list of possible areas of student change and asked to rate the student change in each area using a five-point scale (1 = much change for the worse, to 5 = much change for the better). Table 8 gives the ratings developed from the responses. All ratings were highly positive (and standard deviations relatively small). The change area receiving the highest mean rating was "interest in school."

Student-Resource Interaction: Characteristics and Activities. The Highland program, as previously indicated by the staff and student ratings of program activities, had emphasized the creation and utilization of an effective resource pool. The Highland staff also had stressed to resources the importance of providing end-of-year evaluation data; seventy-two questionnaires were returned by persons from the resource pool. Student data included responses to end-of-year

TABLE 7

SELF-REPORT BY HIGHLAND EBCE STUDENTS ON
WAYS CHANGED AS RESULT OF SCHOOL PROGRAM

Areas of Change	Highland High EBCE	
	Frequency*, N = 48	Percent
Self-growth	44	37
Career/work	4	3
Learning/academic	22	19
Interpersonal	37	31
Future planning	5	4
No change/negative change	5	3
Other	2	2
TOTAL Responses	119	

*Students were asked to name up to three changes so the number of responses is greater than the number of students.

TABLE 8

PARENTS' RATINGS OF HOW STUDENTS CHANGED AS A RESULT OF
PARTICIPATION IN THE HIGHLAND EBCE PROGRAM

Areas of Student Change 5-point rating scale from 1=much change for the worse to 5=much change for the better	Highland EBCE Program Parents (N = 41)	
	Mean	S.D.
Interest in school	4.49	.68
Self-confidence	4.34	.73
Motivation to learn	4.32	.65
Responsibility	4.27	.81
Ability to make decisions	4.22	.76
Ability to plan for future	4.12	.68
Amount of school work done	3.95	.83

questionnaires and a large amount of information on hours spent with resources compiled throughout the year from the weekly student self-reports. In addition, Highland provided a list of resource characteristics (e.g., number of employees at the site, type of organization). The substantial amount of information on resources at this site allowed for an in-depth study of resource-student interactions in the Highland EBCE program. The presentation focuses on some of the resource characteristics, students' activities at resource sites, and resource-student relationships. Excluded are studies of resource perceptions of the EBCE program and their feelings about participation; these topics will be described for all three pilot sites under the topic of data common to all sites.

A major source of information about resources was the student self-report -- the Student Activity Report (SAR) -- of weekly program activities at resource sites. Table 9 categorizes the resource pool by characteristics and shows the usage (as reported by students) of pool members. The data show that approximately one half of the time reported by students was spent visiting program-developed resources.* Of this time, most was spent with resource organizations whose size was fewer than 50 employees. Activity with resource persons was much less frequent (over one third of that reported was with undeveloped resource persons).** Activities with community resources (e.g., museums, libraries) were more common than activities with resource persons as were other general activities in the community (e.g., taking a survey) that were not relatable to a resource.

Using the same source (the SAR), it is possible to examine the number of student-resource contacts. There were 434 different student-resource pairs (that is, a pairing of a student and a resource) during the spring semester. Of these, 292 were pairings of a student with a specific resource person or resource organization and accounted for 929 SAR entries. The remaining 142 student-resource combinations involved the pairing of a student with either a community resource, a non-resource activity in the community, or an undeveloped resource person. Each of these types of activities was treated as a generic

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*A "developed" resource is one who has been interviewed in depth by a staff member, oriented to FWL-EBCE, and described in a Resource Guide.

**That is, persons not yet interviewed by a staff member and described via a Resource Guide. Usually, a person located by a student when the pool of resources does not fit his/her needs.

TABLE 9

CHARACTERISTICS OF THE RESOURCE POOL AT HIGHLAND EBCE RELATED TO AMOUNT OF USAGE BY STUDENTS, SPRING 1976.

POOL CHARACTERISTIC	NUMBER	TOTAL HOURS REPORTED BY STUDENTS
Total Pool	64	8755
Resource Type		
Resource Organizations	40	3544
Resource Persons	24	839
Undeveloped Resource Persons	-	565
Community Resources	-	1961
Other Community Activities	-	1826
Number of Employees		
Fewer Than 10	30	1834
10 - 50	23	1678
More Than 50	11	861
Not Specified	-	4382
Type of Organization		
Commercial	30	1188
Non-Profit	34	3185
Not Specified	-	4382

activity by the SAR. Pairings of these types accounted for 1167 separate entries on the SAR. Some of these pairings involved as little as one hour on one weekly report while others covered continuing visits over a period of time. In general, the more extensive experiences were with resource organizations and with developed resource persons.

Students were asked to rate aspects of their experience with the resource with whom they had spent the most time. Resources filled out the same set of scales in terms of what students did at their sites. Resources were also asked to estimate the percent of time students spent in each type of activity. Results from data collected at Highland EBCE are shown in Table 10. Students reported that they, in their longest experiences, most frequently observed and participated in work activities, learned career skills, and worked on their projects. Students reported spending some time talking about interests and issues and less time talking about jobs and careers. According to students, their least frequent activity was learning academic skills (however, 60% of the resources said that they spent some time helping students learn academic skills). Resources, who were rating what students in general did at their sites, gave top ratings to talking about jobs and careers and to observing work activities; these activities would, of course, be common in short relationships. Approximately one fourth of the resources reported that students did not spend time participating in work activities; a similar number reported no activity with students learning career skills. This may indicate that some sites did not lend themselves to such participation. Resources reported that almost all students spent some time working on their projects.

The length of time students had spent in their longest resource experience also varied widely as shown in Table 11. Twelve percent reported ten hours or less as their longest experience. Fifty-eight percent reported their longest experience as between 11 and 40 hours -- the equivalent of a resource exploration. The remaining 30% report an experience of over 40 hours with one resource.

Resources were asked to estimate the amount of time that they and their staff had devoted to EBCE activities. The reported hours varied widely as shown in Table 12. Although most reported less than 90 hours of EBCE-related activity over the school year, eight of the 62 respondents stated that they had spent from 100 to 600 hours. The median hours reported was approximately 25.

TABLE 10

STUDENTS' AND RESOURCES' RATINGS OF FREQUENCY
OF SITE LEARNING ACTIVITIES, HIGHLAND EBCE

ACTIVITY	How often did students engage in the listed activity? (Rating scale: 1=never, 4=always)				What percentage of students' time spent at your site did they engage in the listed activity?		
	Responses of Students* N=52		Responses of Resources N=69		Resources** N=49 Percent of Time		
	Mean	Rank	Mean	Rank	None	25% or Less	More than 25%
Observe work activities	3.3	1	2.7	1.5	10	77	13
Learn career skills	3.1	2	2.5	4.5	23	67	10
Participate in work activity	3.0	3	2.5	4.5	25	50	25
Work on project	2.9	4.5	2.6	3	6	65	29
Talk about interests, issues	2.9	4.5	2.4	6	17	82	2
Talk about jobs, careers	2.4	6	2.7	1.5	4	77	19
Learn academic skills	2.3	7	2.2	7	40	58	2

*Students reported on their longest RP or RO experience.
**Only 49 Resources completed this portion of the question.

TABLE 11

HOURS REPORTED BY A HIGHLAND EBCE STUDENT
IN HIS/HER LONGEST EXPERIENCE WITH RESOURCE PERSON

CATEGORY	FREQUENCY	PERCENT
Less than 5 hours	1	2
6-10 hours	5	10
11-20 hours	10	20
21-40 hours	19	38
More than 40 hours	15	30
N responding	50	

TABLE 12

HIGHLAND RESOURCES' ESTIMATE OF AMOUNT
OF TIME SPENT IN EBCE RELATED ACTIVITIES

HOURS	FREQUENCY N=62	CUMULATIVE PERCENT
0-9	16	26
10-19	12	45
20-29	6	55
30-39	3	60
40-49	6	69
50-59	3	74
60-69	4	81
70-79	3	85
80-89	1	87
90-99	0	87
100-200	5	95
200-600	3	100
Median	24.8	

Responding to an item asking for a rating on whether time spent with students was more or less than expected, 56% of the resources stated that they had spent less time, 38% somewhat more, and 6% had spent definitely more than expected.*

Resources were asked to estimate how much their site had been able to provide students in the way of learning experiences by completing a set of scales used by students and parents (Table 6). Table 13 shows the mean rating on the items given by resources and compares the item rankings given by resources with those given by students.

Even though a student was rating his/her complete program while a resource was rating opportunities available at his/her site, it is still interesting that the resultant rankings are quite similar. Both groups have identical ranking for the lower-rated items. The three items ranked higher by resources were (1) learning about careers and jobs, (2) accepting different people, and (3) career planning. The three items ranked higher by students were (1) improving skills in working with adults, (2) thinking through and solving problems, and (3) improving listening and speaking skills. It appears that resource persons see career development and acceptance of others as primary learning opportunities. The means for the items were much higher for students (see Table 6) than for resources (Table 13). This might reflect the fact that resources were rating only a part of the total student program.

Table 14 presents three student ratings of resources and activities at their sites. All three ratings are highly positive (means ranging from 4.49 to 4.14 on a five-point scale). Ninety percent of the students felt that resources were genuinely interested in EBCE; 86% felt there was enough choice of things to do at sites; and 82% felt that they actually got to do (rather than just observe) things at the sites.

Table 15 shows ratings of EBCE students and staff by resources involved with students. On a four-point scale, means for the three student items ranged from 3.78 to 3.49. Students were rated highest for behavior, and least high (still positive) for reliability in keeping commitments. On the whole, it appears that resources and students were favorably impressed with each other. Ratings of staff assistance ranged from 3.47 for assistance with student problems to 3.12 for feedback. Fewer resources felt able to address these questions as indicated

*See Table 58.

TABLE 13

RESOURCES' RANKINGS OF LEARNING EXPERIENCES AVAILABLE AT SITES COMPARED WITH STUDENT RANKINGS OF AMOUNT LEARNED IN HIGHLAND EBCE PROGRAM

LEARNING AREA 4-point scale: 1=Nothing 4=A Lot	Highland EBCE		
	RESOURCES N=72		STUDENT N=52
	Mean	Rank	Rank
Learning about careers and jobs	3.56	1	3.5
Accepting many different ideas and backgrounds of people	3.32	2	5
Improving skills in working with adults	3.28	3	1
Thinking through and solving problems	3.24	4	3.5
Planning for a career or careers	3.14	5	7
Learning how to do a particular job	3.04	6	6
Improving listening and speaking skills	2.79	7	2
Learning job-seeking skills	2.52	8	8
Improving skills in working with other students	2.33	9	9
Improving writing skills	2.16	10	10
Improving reading skills	2.07	11	11
Improving math skills	1.72	12	12

TABLE 14

STUDENTS' RATINGS OF RESOURCES, HIGHLAND EBCE

ITEM 5-point scale: 1=Definitely no 5=Definitely yes	Highland EBCE N=49						
	Percent of Response					Mean	S.D.
	1	2	3	4	5		
1. Resources interested in EBCE Program	0	0	10	31	59	4.49	.68
2. At resources sites did student get to actually do things?	2	4	12	31	51	4.25	.97
3. Was there enough choice in what to do at resource sites?	0	4	10	53	33	4.14	.76

TABLE 15

RESOURCES' RATINGS OF STUDENT AND STAFF BEHAVIOR, HIGHLAND EBCE

ITEM 4-point scale: 1=never satisfactory 4=always satisfactory	Highland Resources						
	Frequency					Mean	S.D.
	1	2	3	4	Omit		
Student							
Behavior at the site	0	1	14	57	0	3.78	.45
Interested in site activities	1	1	20	50	0	3.65	.59
Reliability in keeping commitments	0	2	33	37	0	3.49	.56
Staff							
Assistance with student problems	2	5	16	37	12	3.47	.79
Conversations, correspondence and visits by staff members	3	8	16	39	6	3.38	.87
Assistance in planning meaningful student activities	3	5	22	34	8	3.36	.82
Feedback on students who completed projects	6	8	24	28	6	3.12	.95

by the number of omits, but most of those responding were positive about staff assistance. The frequency of various types of staff contact is shown in Table 16. All but two members of the group had contact with staff in the form of a letter, card, luncheon, or other personal means. Usually, this had happened between one and four times during the year. The most frequently reported contacts were telephone calls (from the LC or the director/resource analyst). Most of the resources had received some printed materials. There was a wide range in frequency of contacts with a few people reporting many contacts while others had not received any telephone calls or visits. However, in view of the generally favorable ratings of staff assistance, it appears that the resources felt that they had received the attention they needed to function within the EBCE program.

TABLE 16

RESOURCES' REPORTS ON NUMBER AND TYPE OF STAFF CONTACTS, HIGHLAND EBCE

Form of Staff Contact	Highland EBCE Resources					
	Number of Contacts Frequency					Mean
	(1) None	(2) 1-2	(3) 3-4	(4) Over 4	Omit	
Telephone call from LC	12	23	18	13	6	2.49
Letter, card, luncheon or other personal communication with staff	2	42	17	6	5	2.40
Telephone call by Project Director	18	21	9	16	8	2.36
Resource guide, guide booklet or other informational material	2	42	17	6	5	2.08
Visit by Project Director (Resource analyst)	28	16	14	9	5	2.06
Visit by Learning Coordinator	23	28	11	3	7	1.90
Telephone call or visit by other staff	31	17	8	4	12	1.75

Pacific Horizons High School

Description. Pacific Horizons High School is a full-time, alternative continuation high school located in its own buildings in the redevelopment area of downtown Stockton, California. It is open to students throughout the Stockton Unified School District. Planned level of enrollment is 75 students in grades 10-12. The school is an outgrowth of a district task-force study in dropout prevention. PHHS operated in 1974-75 with a workshop-oriented curriculum using nearly the same staff as currently employed; the FWL-EBCE curriculum was adopted in September, 1975, following the recommendation of that staff. Table 17 presents basic demographic and descriptive information (as collected upon program entry) for the PHHS students enrolled in May, 1976. The data on the student population of PHHS show a preponderance of female students, a majority of white students, and a wide range in parents' education and work. Almost one half the students (49%) emphasize education in their future plans, but fewer than one fifth (18%) plan on attending a four-year college. The students show a wide range in their attitudes toward school for the year before EBCE. Many of them had attended Pacific Horizons that year as well.

Implementation. Although Pacific Horizons High School was in existence as an alternative school during 1974-75, the school year 1975-76 was its first year of operation under the FWL-EBCE format. Training of staff members was initiated in summer, 1975; throughout the year technical assistance and training (TAT) were provided to the local staff by FWL. At the end of the school year, the FWL-EBCE Director of TAT (formerly the FWL-EBCE Staff Director of Model Development) rated the degree of fidelity attained by Pacific Horizons on items in dimensions judged vital to the FWL-EBCE model. (The ratings used the scale: 0% = no congruence with FWL-EBCE, to 100% = complete congruence with FWL-EBCE.) Table 18 provides the perceptions of that FWL staff member most closely involved with PHHS implementation. In only one of four dimensions was more than one item rated at 50% or below. It may be judged that in three of the four dimensions ("Educational Goals," "Characteristics of the Resource Pool," and "Student Responsibility"), Pacific Horizons likely attained a fair representation of the FWL-EBCE model. In one dimension, "Characteristics of Student Programs," Pacific Horizons has not yet approached the quality of student learning programs intended. It was the goal of the Pacific Horizons staff to implement the FWL-EBCE model fully as documented. It might be that this was the most ambitious of the

TABLE 17
DESCRIPTION OF
PACIFIC HORIZONS HIGH SCHOOL PROGRAM

SETTING

Small city urban (population approximately 100,000). Ethnically and socio-economically mixed. School district has four senior high schools, each having approximately 2,000 students.

PROGRAM

Full-time, alternative school with grades 10-12. Open to students throughout district. Primary emphasis: drop-out prevention. Four LCs, skills specialist, director/resource analyst.

STUDENT DEMOGRAPHY

Number of students in end of year group: *73**

Grade	f	%
ninth	0	0
tenth	28	38
eleventh	34	47
twelfth	11	15
Sex		
male	20	27
female	53	73

Ethnic Group	f	%
American Indian	1	2
Black/Afro-American	9	15
Filipino	2	3
Chicano/Mexican-American	8	13
Puerto Rican	0	0
Other Latin-American	1	2
Oriental/Asian-American	0	0
White/Caucasian	38	62
Other	2	3

Median age of students (9-75): *16 years 2 months*

Parents' Education	Mother f	Mother %	Father f	Father %
Elementary school	2	3	9	15
Some high school training	17	28	12	20
High school diploma	21	34	21	35
Some college training	9	15	7	12
College degree	9	15	7	12
Some graduate school	2	3	1	2
Graduate school degree	1	2	3	5

Parents' Work Classification	Mother f	Mother %	Father f	Father %
1 Laborer, homemaker	21	34	5	9
2 Operative, service, military	11	18	11	19
3 Clerical, crafts, proprietor protective	14	23	22	39
4 Farmer, sales, technical	2	3	8	14
5 Administrative, professional	14	22	11	19

STUDENT PLANS AND ATTITUDES AT ENTRY

Education and work emphasis--one year after high school

	%
Going to school, but not working	7
Going to school, but working part time	42
Working, but going to school part time	27
Working, not going to school	17
Other plans	7

Educational program--one year after high school

	%
None	13
Apprenticeship, or on-the-job training	25
Vocational, technical, trade or business school	13
Technical or vocational courses at junior college	13
Academic courses at a junior college	15
Four year college or university	18
Other educational program	3

Attitude toward school	last year %	before last year %
1 Disliked almost everything about it	7	16
2 Disliked more than liked it	27	29
3 Liked/disliked it about equally	16	26
4 Liked it more than disliked it	31	21
5 Liked almost everything about it	19	8
Mean	3.29	2.76
Standard Deviation	1.25	1.20

* *Data in this table are based on total number responding to the item. Most of the information came from 62 students who completed the demographic information form.*

TABLE 18

FIDELITY OF THE PACIFIC HORIZONS HIGH SCHOOL TO THE FWL-EBCE MODEL; RATINGS BY THE FWL DIRECTOR OF TECHNICAL ASSISTANCE AND TRAINING (JUNE, 1976).

DIMENSION	ITEM	FIDELITY RATING (%)
Educational Goals		
	Career Development	50
	Life Skills	60
	Basic Skills	90
Characteristics of Resource Pool		
	Diversity	60
	Willingness to participate	80
	Provision of 1-1 learning	60
	Adaptability of site activities	80
	Involvement in planning and evaluating students' projects	40
Characteristics of Students' Programs		
	Projects as core	50
	Involvement with community resources	50
	Standards set	30
	Supplementary learning design	40
	Peer interaction	40
	Criteria for credit	30
	Academic credit	90
Student Responsibility		
	Long-term planning	50
	Establishing learning-objectives and activities	80
	Selecting content	80
	Setting performance criteria	70
	Selecting resources	90
	Self-evaluation	60

implementation efforts among the three pilot sites in that Pacific Horizons was the only program situated outside an existing school, so the complete supplementary curriculum had to be developed as well.

Pacific Horizons staff felt that they had less than complete success in program implementation during 1975-76. They expressed to FWL their concerns over two likelihoods: (1) that some processes of the FWL-EBCE model unknowingly had been implemented/operated imperfectly due to Pacific Horizons staff ignorance, misconceptions, or educational biases; and (2) that some of the processes of FWL-EBCE must be further adapted to fit Pacific Horizons educational and social environments. These concerns are discussed later under "Information for Program Improvement."

In order to gather information about the perceptions of Pacific Horizons staff members regarding their program operations at the end of the year, they were asked to rate their degree of satisfaction (1 = not at all satisfied, to 5 = completely satisfied) with 15 key Pacific Horizons program processes. Table 19 summarizes the ratings given by five staff members. The data indicate that the Pacific Horizons staff was satisfied (i.e., mean rating above scale midpoint) only with processes involving direct student-staff interaction (those activities ranked 1-5). The data also indicate that the staff was relatively dissatisfied with those processes involving staff-resource interaction (activities ranked 12-14). Finally, in its use of the Project Planning Packages (viewed by FWL-EBCE developers as a principal mechanism for assuring quality control in students' projects), staff was least satisfied.

At the end of the year, both Pacific Horizons staff and students were asked to rate (using a five-point scale) the success of several EBCE program activities in three learning areas: self-development, career development, and general learning. Table 20 shows the ratings obtained. The two groups gave the same relative rankings to the three categories; however, staff ratings of success were lower than the ratings by the students -- markedly so for "General Learning." The mean rating by staff members of this category was well below the scale midpoint.

Program Ratings. Table 20, while showing that staff gives a low rating to the general learning of students at Pacific Horizons, also reveals that students rate the PHHS program relatively highly in each of the three learning areas (self-development, career development, and general learning). Additional

TABLE 19

PACIFIC HORIZONS STAFF'S SATISFACTION WITH PROGRAM PROCESSES IN CRITICAL AREAS

PROCESS 5-point scale: 1=not at all satisfied 5=completely satisfied	Pacific Horizons EBCE N=5		
	Rank	Mean	S.D.
Orienting new students	1	3.8	.75
Students' planning projects	2	3.75	.43
Students' planning supplementary activities	3	3.5	.5
Students' long-term planning	4	3.25	.83
Assessing students' skills at entry	5	3.2	1.17
Coordinating staff responsibilities	6.5	3.0	.89
Monitoring students' progress	6.5	3.0	1.26
Preparing resource guides	8	2.8	1.17
Recruiting new students	10	2.6	1.36
Preparing students for activities with resources	10	2.6	1.36
Organizing and managing the supplementary curriculum	10	2.6	1.62
Maintaining resources	12	2.2	.75
Recruiting resources	13	2.0	.89
Preparing resources for activities with students	14	1.8	.75
Using packages	15	1.25	.43

TABLE 20

RATINGS BY STUDENTS AND STAFF ON
SUCCESS OF PROGRAM ACTIVITIES
PACIFIC HORIZONS HIGH SCHOOL

Activity Categories	Pacific Horizons EBCE		
	N items	Mean of item means (5-point scale)	
		Students N = 73	Staff N = 5
Self-development (learning about oneself, learning to make decisions)	2	4.3	3.7
Career development (planning for, learning about)	2	4.0	3.4
General learning (academic skills, basic skills)	2	3.5	2.2

information on the amount of students' learning was sought from students and parents of students through end-of-year questionnaires.

Members of each group were asked to rate the amount of learning achieved by the student in twelve areas related to FWL-EBCE student-outcome goals. The mean item responses and item rankings are presented in Table 21. Several observations are apparent from this table:

- There is general agreement between parents' rankings and students' rankings.
- Parents' ratings were generally lower than students' ratings.
- The top-rated item for both students and parents was "improving skills in working with adults."
- The four items rated highest by students did not have to do with careers, but with getting along better with people, improved communication and problem-solving (however, parents rated "learning about careers and jobs" in second place). "Career planning and knowledge" and "working better with other students" were next in order of amount learned, according to students.

TABLE 21

STUDENTS' AND PARENTS' RATINGS OF
AMOUNT LEARNED IN PACIFIC HORIZONS PROGRAM

LEARNING AREA 4-point scale: 1=Nothing 4=A Lot	Pacific Horizons					
	STUDENT N=73			PARENT N=68		
	RANK	S.D.	MEAN	MEAN	S.D.	RANK
Improving skills in working with adults	1	.74	3.38	3.31	86	1
Improving listening and speaking skills	2	.75	3.33	3.07	.90	4
Thinking through and solving problems	3.5	.74	3.32	2.94	.98	3
Accepting many different ideas and backgrounds of people	3.5	.77	3.32	3.13	.91	7
Learning about careers and jobs	5	.74	3.21	3.20	.75	2
Improving skills in working with other students	6	.76	3.11	3.03	.77	5
Planning for a career or careers	7	.78	3.08	2.97	.94	6
Learning job seeking skills	8	.82	2.99	2.83	.88	9
Learning how to do a particular job	9	.88	2.88	2.91	.95	8
Improving writing skills	10	1.02	2.86	2.64	.90	10.5
Improving reading skills	11	.98	2.64	2.64	.99	10.5
Improving math skills	12	1.10	2.25	2.44	1.07	12

- The specific areas of job training and job seeking were rated low by both parents and students. This is consistent with the FWL-EBCE model where emphasis is placed on career planning rather than on specific job training or placement.

- Items rated lowest by both parents and students were those related to basic skills. It is evident from the magnitude of the standard deviations (.98 for reading, 1.01 for writing, and 1.10 for math) that some students felt they had improved considerably in basic skills while others did not see improvement.

Evidence of change in students enrolled in PHHS throughout the year was sought from both students and parents of students. Students were asked to list three ways in which they felt that they had changed as a result of EBCE. Their written responses were content-analyzed and aggregated by five categories. This self-report information is shown in Table 22. When the total pool of responses was formed, approximately one third were in the area of development of interpersonal skills and nearly one third in the area of self-growth (e.g., self-confidence, decision-making). Fewer than one fifth were related to academic growth; responses related to the future (future planning, career/work) were even less frequent. The distribution of these responses on this question are quite consistent with the data of Table 21, previously discussed.

Parents were offered a list of possible areas of student growth and asked to rate their children's change in each area (a five-point scale was used: 1 = much change for the worse, to 5 = much change for the better). The data resulting are presented in Table 23. Notice that parents gave all items mean-ratings well above the scale midpoint. Interestingly, the top-rated item was the student's "ability to plan for the future." This change perceived by the parents is in direct contrast to the low frequency of such change expressed by the students. All means are quite close with the exception of that of the lowest-rated item, "amount of school work done." The relatively large standard deviation of this item indicates a broad range of opinion; the original data show that 13 of the parents gave responses of negative change, 13 gave responses of no change, and 40 gave responses of positive change.

Information for Program Improvement. The staff at Pacific Horizons High School expressed a variety of concerns about the program operations as the end of the school year approached. The concerns could be grouped into three areas:

1. Management/administration;
2. Staff and student interaction; and
3. Student/treatment interaction.

TABLE 22

SELF-REPORT BY PACIFIC HORIZONS STUDENTS
ON WAYS CHANGED AS RESULT OF SCHOOL PROGRAM

Areas of Change	Pacific Horizons	
	Frequency*, N = 61	Percent
Self-growth	50	31
Career/work	12	7
Learning/academic	28	18
Interpersonal	53	33
Future planning	13	8
No change/negative change	4	3
Other	0	0
TOTAL Responses	160	

*Students were asked to name up to three changes so the number of responses is greater than the number of students.

TABLE 23

PARENTS' RATINGS OF HOW STUDENTS CHANGED AS A
RESULT OF PARTICIPATION IN THE PACIFIC HORIZONS PROGRAM

Areas of Student Change 5-point rating scale 1=much change for the worse 5=much change for the better	Pacific Horizons Parents (N=67)	
	Mean	S.D.
Ability to plan for future	4.08	.97
Self-confidence	4.08	.96
Interest in school	3.99	1.12
Ability to make decisions	3.97	1.00
Motivation to learn	3.96	1.13
Responsibility	3.85	1.16
Amount of school work done	3.61	1.33

The first area of concern seems to reflect the hypothesis that if the program had not succeeded as planned, it was because the staff members had not worked hard enough, did not get along well enough, or were not suitable for the program. Although these are legitimate concerns of local staff, they were outside the bounds of FWL's evaluation design.

The second area of concern deals largely with staff interaction with students -- questionning the amount and type of direction and motivation given to students and the degree to which the staff had applied the EBCE techniques and had developed a fully sufficient quantity and quality of internal and external resources.

The third area of concern asks questions about the suitability of the students for the program. What type of students "succeeded" in the program? To what degree can selection criteria be identified that would screen out students unsuited to EBCE? How appropriate was the EBCE curriculum for the students at Pacific Horizons?

The Pacific Horizons staff expressed considerable interest in the use of evaluation data to address these concerns. Their interest was in information that would help them improve the effectiveness of the program for the 1976-77 year. They augmented the end-of-year student questionnaires. They collected complete end-of-year student data from all but one enrolled student, and end-of-year parent questionnaires from all but six families. The staff also provided FWL with data on a number of student variables -- both entry and treatment characteristics -- that they felt might be related to outcomes. The total pool of data provided information directly related to two areas of concern: how well did the program staff function with students; and how did students' characteristics relate to treatment and outcomes.

Staff and Student Interaction. The Pacific Horizons staff members expressed concern about the effectiveness of their own roles in the program. They added a number of questions to the end-of-year student questionnaires developed by FWL in order to probe student attitudes toward LC-student interactions. A selection of questions with data responses is presented in Table 24. It is evident from Table 24 that students felt satisfied with the amount of assistance they received from LCs, while at the same time they recognized that they had been required to take more responsibility for themselves and had been encouraged to make their own decisions. When asked if they would have been more successful

TABLE 24

STUDENTS' RATINGS OF STAFF ASSISTANCE AND STAFF EXPECTATIONS, PACIFIC HORIZONS HIGH SCHOOL

Item (5-point scale: 1=very little 5=very much)	Mean	S.D.
Are you satisfied with the amount of help you received from your LC?	4.64	.81
How much assistance did you get from your LC in planning and carrying out your program?	4.56	.71
In the program, how much were you expected to plan you own activities and manage your own time?	4.51	.85
In the program, how much were you expected to judge your own behavior and performance and to accept responsibility for actions you took?	4.51	.85
How much were you motivated to succeed in the EBCE program by your LC?	4.42	.84
How much did your LC emphasize the importance of making good decisions?	4.25	.88
Other than scheduled times, how often was your LC available to you?	4.04	.99
How much more successful would you have been if you LC had put more pressure on you?	3.08	1.47

TABLE 25

STUDENTS' RATINGS OF LEARNING EXPERIENCES
PACIFIC HORIZONS HIGH SCHOOL

Item (5-point scale: 1=very little 5=very much)	Frequencies						Mean	S.D.
	1	2	3	4	5	Omit		
Did your project activities help you to learn about careers?	1	6	8	14	43	1	4.28	1.05
Did your project activities help you to understand how academic knowledge is used in the world of work?	2	7	17	16	30	1	3.90	1.14
Did your project activities help you to learn about academic subjects?	3	12	17	19	22	0	3.62	1.20
Was there a wide enough selection of resource persons to meet your:								
a) Academic needs?	5	7	23	16	21	1	3.57	1.21
b) Career needs?	8	9	19	17	18	2	3.39	1.30
How satisfied are you with the amount of help you received in the supplementary curriculum (if utilized)?	7	7	8	15	24	12	3.69	1.40

if placed under more LC pressure, student responses varied widely (as is shown by the lower mean and large standard deviation for this item).

There was also concern among staff members about three facets of the PHHS curriculum: (1) the emphasis on the project as the primary learning mechanism; (2) the adequacy of the resource pool developed; and (3) the effectiveness of the supplementary curriculum provided to augment learning through projects. Students were asked to rate the degree to which projects helped them; to rate the adequacy of the resource pool in providing learning opportunities for them; and to rate the amount of help provided by the supplementary curriculum. Table 25 aggregates the responses of students to these questions. The data indicate that students were generally most in agreement with statements about projects helping them learn about careers; they were less sure about help in academic subjects either through projects or through the supplementary curriculum. Only about one half the students felt there had been a wide enough selection of resource persons to meet either academic or career needs.

However, when asked about the credit assignment method used (tying credit to projects), the group was divided on the extent to which this had kept them from meeting their needs (credits toward graduation requirements). Twenty-seven students felt this had had much effect (had kept them from meeting their needs) while twenty-eight students felt that it had had very little effect. Responses to this question (Table 26) seem to reflect discontent among the Pacific Horizons student body on the subject of credit assignment.

TABLE 26

STUDENTS' RATINGS OF THE PROJECT EMPHASIS
FOR EARNING CREDITS, PACIFIC HORIZONS HIGH SCHOOL

Question (5-point scale: 1=very little, 5=very much)	Frequencies						Mean	S.D.
	1	2	3	4	5	Omit		
Has tying projects to credits kept you from meeting your needs?	19	9	17	18	9	1	2.85	1.39

When asked to criticize the Pacific Horizons program and to list aspects that they didn't like, their strongest criticisms were related to obtaining credits. Responses focused on (1) difficulty in earning credits; (2) dissatisfaction with the project as the mechanism for earning credits; and (3) the lack of classroom structure as a method for earning credits. Another question asked the student whether he/she, if given the choice again, would choose to attend PHHS. The criticisms made of the program by students were separated by students giving a negative or neutral reply and students giving a positive reply to that question; results are shown by Table 27.

TABLE 27

PROGRAM CRITICISMS BY PACIFIC HORIZONS STUDENTS RELATED TO RATINGS OF VALUE OF PROGRAM PARTICIPATION

CRITICISM OF PROGRAM OFFERED BY STUDENT	Response to Question: Would you participate again? (Using a five-point scale)	
	No or Neutral (levels 1-3)	Yes (levels 4,5)
Major Criticisms (credits, projects, general curriculum structure)	11	13
Minor Criticism (social life, filling out forms, problems with resources)	1	14
No criticism expressed	3	30
TOTAL	15	57

The results show most (11 out of 15) students who had doubts about participating again expressed major criticisms (i.e., comments about the program and ways program could change) about the program on the open-ended questions. A much lower proportion (13 out of 57) of "satisfied" students expressed major criticisms. However, overall a total of twenty-four students expressed concerns

about the functioning of the program in the major areas of credits, projects, and related curriculum structure. This finding of relatively high number of critical students must be tempered by the realization that for the fall, 1975 semester, student recruitment and selection was virtually completed before the adoption of EBCE as the curriculum structure. Thus, the students that enrolled did not volunteer for EBCE (they volunteered on the basis of the 1974-75 school-centered, workshop-oriented curriculum); it is not surprising that many missed the classroom structure.

Student/Treatment/Effect Interaction

Description of the Variables. Because of the strong interest of Pacific Horizons staff members in the relationships among student characteristics, treatment characteristics and student outcomes, they provided FWL with considerable information on students. These student variables provide a basis for correlational analysis of students' characteristics, the characteristics of the learning program they elect, and the outcomes measured. From the pool of available data, 45 variables were chosen for the study of student-treatment-effects. The variables can be grouped into three categories:

1. Student characteristics. Twenty-two variables were included, divided into three subgroups:

   (a) Basic demography: age, sex, ethnic group (comparison of black/white and Chicano/white groups), father's and mother's education, and SES (a rough measure based on rating of father's and mother's job classifications).

   (b) Entry attitudes: plans for work and education after high school, like for school in previous years, and ratings of given reasons for entering the program that are not related to career/job information (such as to get away from school problems or to make new friends).

   (c) School-related variables: age at entry into the program, amount of high school credits earned before entry, number of semesters in high school before entry, grade level (based on credits earned), and identification as substantially below proper grade level or near/above proper grade level at time of entry (based on credits earned).

2. Treatment characteristics. The treatment characteristics for students were limited to various records of time: quarters (nine-week half-term) enrolled, number of unexcused absences, greatest amount of time spent with any one resource person, and high or low (above or below recorded program median for students) record

of student-reported time spent in spring semester with external (community) resources, with internal (learning center) resources, and in total time spent in program activities.

3. Effects. Two subgroups of student-effects variables were examined: credits and perceptions.

   (a) Credits: total credits earned in the EBCE program for the 1975-76 school year; credits earned in projects; credits earned through the supplementary curriculum; and credits earned in physical education activities. A second set of variables divided credits earned by the number of quarters enrolled by the student.

   (b) Perceptions: the items were chosen either because they demonstrated significant correlations in a previous analysis,* they were of particular current interest to FWL-EBCE, or they reflected the concerns of the Pacific Horizons site personnel. Nine items were included. Two items were ratings of program criticism (see Table 27 and accompanying discussion), one of which covered all written criticisms appearing on the questionnaires while the other covered only major program criticisms. Also included were ratings of the extent that: the student would wish to participate in EBCE again; the student felt that he/she would have been more successful if more LC pressure had been placed on him/her; tying projects to credits was perceived by the student as keeping him/her from meeting his/her needs; RP selection met the student's career needs; the supplementary curriculum helped meet the student's needs; and the student liked school this year.

Results. This presentation will be confined to description of the most important relationships uncovered by the analysis. Where there are a number of intercorrelations of interest, a table is presented. Where the correlations among items are more scattered, the data are presented within the text. All correlations presented are significant at the .05 level (using a two-tailed test of significance). Most are significant at the .01 level; for the full sample of 73 students, a correlation of approximately .27 is significant at the .01 level.

Relationships among student characteristics and other variables.

1. There were few significant correlations between demographic characteristics of students and either treatment or outcomes variables.

*See Final Evaluation Report FY1975.

2. There was a tendency for girls to report more hours for longest contact with the Resource Person (.33), to earn more project credit (.26), and to express less criticism of the program (-.24). They also tended to be younger at entry (-.26) and less likely to have entered the program to get away from problems at a previous school (-.25).

3. A comparison of black students with the majority (white) group showed no noticeable differences in student entry characteristics, in treatment characteristics, or in credits earned, but significant differences in outcome perceptions; black students rated the program more favorably. They expressed fewer criticisms (-.41), would participate again (.32), and felt that the program had provided sufficient resources to meet their career needs (.28). In general, they answered the perception questions in a more positive direction than other students.

4. In comparison with the group of 44 white students, the twelve Mexican/American students were more positive in their ratings of previous school experience (.32) and more likely to have entered EBCE either to plan their own school program (.27) or to get help in finding a job (.28).

5. Father's education and mother's education do not seem to be important factors in this matrix. Neither is the SES variable useful; its construction from parents' careers may have been inadequate for the purpose.

6. Long-term negative feeling about school (as shown by low ratings on the question, "How did you like school in the years before last year?") was correlated with older age at entry into the program (-.26), with higher grade level (-.33), and with remaining in the program for more quarters than other students (-.43).

7. Those students who had spent more time in high school and those who had earned more high school credits prior to entry were more inclined to rate highly two reasons for entering the EBCE program -- making new friends (.32, .29, respectively), and getting into a program different from regular school (.29, .31, respectively).

8. The group of students that were identified as being well below grade level at entry (in terms of credits earned) were not significantly older than other students at time of entry into the EBCE program and had not spent more time in their previous high school.

Relationships between EBCE treatment and school-related entry characteristics.

1. The student treatment characteristics were themselves highly intercorrelated as shown in Table 28. The high correlation

TABLE 28

INTERCORRELATION OF TREATMENT VARIABLES,
PACIFIC HORIZONS HIGH SCHOOL

Variable	Correlations					
	1	2	3	4	5	6
1. Mean external hours per week spring semester (1=low; 2=high)	—	.34	.45	.36	.23	-.28
2. Mean internal hours per week (1=low; 2=high)		—	.84	.30	.35	-.25
3. Mean total hours per week (1=low; 2=high)			—	.42	.33	-.26
4. Maximum hours with one resource person during the year (1=5 hrs or less; 5=40 hrs or more)				—	.44	-.10
5. Number of quarters enrolled (1 to 4)					—	.08
6. Number unexcused absences						—
7. Entry age	.01	.01	.08	-.23	-.16	-.13
8. Previous high school credits	.26	.19	.32	.04	.17	-.34
9. Grade level based on credits (1=ninth grade; 4=twelfth grade)	.26	.23	.38	.15	.32	-.25
10. Number of semesters spent in high school	.17	.24	.32	.02	.07	-.13
11. At or below grade level (1=below; 2=at or above)	.21	.28	.39	.15	.20	-.31

(.84) between high internal hours and high total hours reflects the fact that most of the program hours reported were spent in internal activities. However, those reporting high total hours were also more likely to report high external (community) resource hours and more time spent with one resource person. The tendency to report high mean hours per week in the program also increased with the number of quarters enrolled. There was a correlation between low mean hours per week as reported by students and high unexcused absences as reported by LCs. However, there was no relationship between quarters enrolled and number of unexcused absences. In summary, as students are in the program longer, they tend to report more time spent per week and longer experiences with resource persons. Irrespective of number of quarters enrolled, there is an association between low amount of time spent per week and high number of unexcused absences.

2. The relationship between treatment variables and student entry characteristics is also shown in Table 28. It appears that age at entry is not a good predictor of weekly time students spend in the program. On the other hand, students who have earned more credits, and are at grade level at entrance, report more time spent per week and have fewer absences.

Relationships among credits earned, entry characteristics, and treatment. Table 29 presents the correlations between the credits earned per quarter and treatment or entry characteristics. The four variables based on total credits earned for the year did not add useful information and are not discussed in this presentation.

1. The amount of project credit earned and the amount of total credits earned were positively correlated with reporting of high mean hours per week. (There also was a high correlation not shown in Table 29 of .73 between project credit and total credit.) Supplementary and PE credit were unrelated to high reporting of mean hours. Since all students were required to put some time into PE, it is understandable that this would not correlate with total effort. It also appears that the program was successful in tying credits earned to projects so that there is a relationship between effort applied and high project credit.

2. A high absence rate is associated with low credits earned.

3. Credit earned is not related to length of enrollment except for a trend toward more project credit for those enrolled longer.

4. Age at entry and time spent in previous high school are not associated with credits earned.

5. Those who entered the program with more credits earned and were at least at grade level (based on credits) earned more project credit and more total credit per quarter in the EBCE program. In contrast, those who entered the program below the proper grade level tended to earn fewer credits than others in every category.

TABLE 29

CORRELATIONS BETWEEN CREDITS EARNED AND OTHER VARIABLES, PACIFIC HORIZONS HIGH SCHOOL

Variables	Credit Earned Per Quarter			
	Projects	Supp. Curr.	PE	Total
1. External hours	.38	-.05	.07	.29
2. Internal hours	.42	.04	-.04	.34
3. Total hours	.48	.05	-.07	.38
4. RP hours	.42	.01	.04	.34
5. Quarters enrolled	.20	-.04	-.09	.13
6. Absences	-.35	-.24	-.28	-.43
7. Entry age	-.05	.06	.00	-.01
8. High School credits	.35	.10	.17	.34
9. Grade Level based on credits	.40	.08	.08	.37
10. Time spent in high school	.16	-.04	-.03	.10
11. At or below grade at entry	.38	.36	.33	.51

Relationships among program perceptions and other variables.

1. The intercorrelations of eight program perceptions ratings are shown in Table 30. There is a pattern of strong intercorrelation among several of the variables; for example, a high rating for "would participate again" is associated with being "motivated to learn in the program," with "like school this year," with relative satisfaction with tying credits to projects, and with few major criticisms. Conversely, many major program criticisms (usually complaints about credit assignment and projects) and high feeling

that tying credits to projects kept the student from meeting his/her credit needs were strongly related and were also associated with a low rating for "would participate again" and with a dislike for school this year.

2. The rating of how much better the student would have done under more LC pressure was unrelated to other ratings of outcomes perceptions. A correlation of .30 was found between this variable and with plans to go on in school rather than go to work; this is, students planning to go on in school would like more LC pressure. There were also slight correlations (.22 to .28) between this variable and four of the non-career related reasons for entering the program (e.g., getting more individual attention). It appears that this variable may be tied to personality factors more than program-specific factors. It is interesting to note that students who felt they would have done better with more pressure did not put in less time in the program or earn fewer credits, neither did they have more general criticisms of the program.

3. There was a slight relationship between ratings of the degree that the supplementary curriculum met perceived needs and the degree that the resource selection met perceived career needs. Neither of these items was tied strongly to other ratings of the program. However, the supplementary curriculum rating was positively related to high mean hours for internal activities (.36) and for total activities (.37), and showed some relationship (correlations of .24 to .25) to credits earned for projects, supplementary activities and total credits per quarter.

4. Those students who would choose to participate again and those who had felt motivated to learn in the program had fewer absences (-.28, -.2 , respectively) and tended to earn more project credit (.24, .28, respectively) and total credit (.24, .22, respectively).

Summary. There appeared to be little information from student demography that could lead to a prediction of success or failure in the Pacific Horizons EBCE program; perhaps the most interesting item was the highly favorable program impression of the group of black students. Baseline entry attitudes were not strongly related to treatment (amount or way time was spent in EBCE) or outcomes.

Ratings of the program at the end of the year were highly intercorrelated, but not strongly related to other measures. An exception was a positive relationship between credits earned and a degree of satisfaction with the program.

TABLE 30

INTERCORRELATION OF PROGRAM PERCEPTIONS RATINGS,
PACIFIC HORIZONS HIGH SCHOOL

Variables	1	2	3	4	5	6	7	8
1. Major program criticism	—	-.42	-.20	-.02	.42	-.19	.05	-.30
2. Would participate again		—	.58	.21	-.41	.26	.11	.61
3. Motivated to learn			—	.00	-.31	.27	.12	.30
4. Better if more LC pressure				—	.01	.13	.18	.21
5. Typing credits to projects unsatisfactory					—	-.21	.02	-.28
6. RP selection met career needs						—	.24	.23
7. Supplementary curriculum met needs							—	.03
8. Liked school this year								—

The strongest relationships were among school-related entry characteristics (what the student brought with him from former school experiences), treatment characteristics (amount of time the student spent in program activities), and credits. While entry age was not a good predictor of amount of time spent per week in the program or of credit earned, the number of credits earned before entering the program are positively associated with time spent per week in the program and credits earned. It appears that those who had been successful in earning credits in other high school programs continued to earn credits in the EBCE program. In contrast, it was found that those who entered the program below grade level, in terms of credits, spent less time per week in the program and earned fewer credits than did those students at grade level. It is quite possible that this latter group of students may have been more successful in the EBCE program than they were in their previous program and that they may, over time, increase the effort applied and the credits earned. It appears that it might be a difficult and long-term effort to reverse patterns of failure that students bring with them when they enter a new program.

Edison High School EBCE

Description. Edison High School EBCE is organized as a department of that high school. As such, it offers students either part-time or full-time learning programs. Students participate from grades 10-12; enrollment was 85 in June, 1976. During the spring, staff was composed of a resource analyst and four learning coordinators (only two "LCs" were employed in the fall). One of the learning coordinators doubled as program director.

Edison High School is located in a black residential area of Fresno. In 1974-75, its student body was almost totally comprised of blacks; FWL-EBCE was located at this school as a magnet program -- part of a district effort to integrate the school. A restriction placed on EBCE recruitment was that the number of Edison students enrolled should not exceed the number of students drawn from other high schools. This recruitment emphasis has resulted in an enrollment with a majority of white students; thus, the program is fulfilling the district integration objective.

The students enrolled (see Table 31) show a range in the education of their parents: 44% of fathers and 25% of mothers have college degrees, 18% of fathers and 11% of mothers do not have high school diplomas. Correspondingly, 48% of fathers and 21% of mothers work in jobs generally judged to require lengthy training. Only 16% of fathers and 24% of mothers work in jobs needing little training.

Most students (78%) emphasize education over work in their immediate future plans; attendance at a four-year college is the most common (41%) plan. The students exhibit a wide range in attitude toward school in the year before enrolling in EBCE: 26% were negative; 37% were neutral; and 37% were positive.

Implementation. Initial training of staff was provided in spring, 1975. The EBCE program was initiated with the spring "quinmester" (nine-week term) and continued through the summer and the 1975-76 school year. Early evaluation findings concerning program implementation at Edison were reported in the FWL-EBCE Final Evaluation Report FY1975. Additional on-site technical assistance was provided by FWL throughout the 1975-76 school year as requested by Edison EBCE staff. The amount of assistance requested by this staff was less than that requested by either of the other two pilots. At least two factors are evident here: first, Edison EBCE had attained an advanced, stabilized state of implementation and thus might be expected to need less assistance than the newly-

TABLE 31
DESCRIPTION OF
EDISON HIGH SCHOOL EBCE PROGRAM

SETTING

Lower-income urban (city population approximately 300,000). Mainly black neighborhood. School district has 6 high schools with approximately 12,000 enrollment.

PROGRAM

Part- or full-time alternative program that is a department of the high school; grades 10-12. Magnet program open to students throughout the district; located at Edison High School to aid in providing ethnic balance at this school. Four LCs, resource analyst.

STUDENT DEMOGRAPHY

Number of students in end of year group: 56*

Grade	f	%
ninth	0	0
tenth	9	17
eleventh	16	30
twelfth	29	54
Sex		
male	21	44
female	27	56

Ethnic Group	f	%
American Indian	2	4
Black/Afro-American	10	22
Filipino	1	2
Chicano/Mexican-American	2	4
Puerto Rican	0	0
Other Latin-American	1	2
Oriental/Asian-American	1	2
White/Caucasian	27	59
Other	2	4

Median age of students (9-75): 17 years 2 months

Parents' Education	Mother f	Mother %	Father f	Father %
Elementary school	1	2	2	4
Some high school training	4	9	6	14
High school diploma	16	36	9	20
Some college training	13	29	8	18
College degree	8	18	13	30
Some graduate school	0	0	0	0
Graduate school degree	3	7	6	14

Parents' Work Classification	Mother f	Mother %	Father f	Father %
1 Laborer, homemaker	19	49	3	8
2 Operative, service, military	5	13	3	8
3 Clerical, crafts, proprietor protective	7	18	11	31
4 Farmer, sales, technical	1	3	5	14
5 Administrative, professional	7	18	14	34

STUDENT PLANS AND ATTITUDES AT ENTRY

Education and work emphasis--one year after high school

	%
Going to school, but not working	14
Going to school, but working part time	64
Working, but going to school part time	14
Working, not going to school	2
Other plans	5

Educational program--one year after high school

	%
None	4
Apprenticeship, or on-the-job training	13
Vocational, technical, trade or business school	4
Technical or vocational courses at junior college	7
Academic courses at a junior college	30
Four year college or university	41
Other educational program	0

Attitude toward school	last year %	before last year %
1 Disliked almost everything about it	4	4
2 Disliked more than liked it	22	9
3 Liked/disliked it about equally	37	35
4 Liked it more than disliked it	11	30
5 Liked almost everything about it	26	22
Mean	3.33	3.60
Standard Deviation	1.21	1.07

* *The end-of-year group consists of the 56 students who at that time had been enrolled at least two quins, not all students completed all instruments: data in this table are based on students who completed the demographic data form.*

implementing sites; and second, the staff evinced little concern with reproducing FWL-EBCE with high "fidelity" -- that is, there was a willingness on the part of Edison staff to adapt the program as it saw fit (an approach encouraged by FWL). At the end of the school year, the two FWL staff members who assisted the Edison staff in implementation each rated the congruence of this program with the FWL-EBCE model. Table 32 shows the means of the two sets of ratings. They perceive the Edison program as deviating substantially from the FWL-EBCE model on two dimensions: educational goals (especially in career development and development of life skills); and the characteristics of students' learning programs (most of all in the integration of the supplementary and project curricula, and in peer interactions -- e.g., through project seminars). On the other two dimensions, only one item rating is below 50%; "resources' involvement in planning and evaluating students' projects" was perceived as absent in the program. The program is judged to provide a fair representation of the FWL-EBCE model on these dimensions.

Realizing that many of the relatively low ratings of fidelity to the FWL-EBCE model (mentioned above) could represent planned variations/adaptations of local staff, the two FWL-EBCE staff members providing on-site assistance were asked to complete ratings of the congruence of the Edison EBCE program as operating with the program as planned during the early phases of FWL assistance. The resultant (mean) ratings are shown by the right-hand column of Table 32. Several facts emerge:

- The operating program was perceived as relatively low in fidelity to the planned educational goals;
- The operating program shows both items of congruence and items of deviation from the planned program in the area of "characteristics of students' programs";
- The operating program is reasonably close to plan in the area of "characteristics of the resource pool"; and
- The operating program is perceived as relatively close to plan in the area of "student responsibility."

This leads to the following two conclusions:

1. The program as originally planned was congruent with the FWL-EBCE model in "educational goals" and "student responsibility," was moderate in its adherence to the model on "characteristics of resource pool," and was relatively low in fidelity to the model on "characteristics of students' programs"; and

TABLE 32

FIDELITY OF EDISON HIGH SCHOOL EBCE AS OPERATING TO THE FWL-EBCE MODEL AND TO THE PLANNED PROGRAM DESIGN; MEAN RATING OF THE TWO FWL STAFF MEMBERS PROVIDING ASSISTANCE TO THE SITE (APRIL, 1976).

DIMENSION	ITEM	RATING OF FIDELITY TO FWL-EBCE (%)	RATING OF FIDELITY TO PLANNED DESIGN (%)
Educational Goals			
	Career Development	35	35
	Life Skills	25	25
	Basic Skills	75	75
Characteristics of Resource Pool			
	Diversity	50	100
	Willingness to participate	50	50
	Provision of 1-1 learning	70	75
	Adaptability of site activities	60	70
	Involvement in planning and evaluating students' projects	0	50
Characteristics of Students' Programs			
	Projects as core	30	60
	Involvement with community resources	20	40
	Standards set	20	40
	Supplementary learning design	0	100
	Peer interaction	10	15
	Criteria for credit	20	50
	Academic credit	75	90
Student Responsibility			
	Long-term planning	50	50
	Establishing learning objectives and activities	50	50
	Selecting content	70	70
	Setting performance criteria	60	60
	Selecting resources	80	80
	Self evaluation	80	80

2. The program was implemented much as planned except in emphasis of "educational goals," and in certain facets of students' learning programs (especially "peer interaction").

At the end of the year, students were asked to rate the extent of program success on six items related to three EBCE goals: self-development, career development, and general learning. Their responses are summarized by Table 33. The students were positive about success in all three areas -- especially so for self-development and career development (means 4.4 and 4.3, respectively).

TABLE 33

STUDENTS' RATINGS OF SUCCESS OF EDISON EBCE ACTIVITIES

ACTIVITY CATEGORIES 5-point scale: 1=Not at all successful 5=Very successful	Edison EBCE Students (N = 32)	
	N items	Mean of item means
Self-development (learning about oneself, learning to make decisions)	2	4.4
Career development (planning for, learning about)	2	4.3
General Learning (academic skills, basic skills)	2	3.8

Program Ratings. Information on the type and amount of learning achieved by students was obtained with an item asking the student to rate his/her learning achieved in each of twelve desired student-outcome areas. The rank and mean of the item ratings given by students are presented in Table 34. It is evident that Edison students saw learning about careers and planning for careers as major learning areas in the program. They also gave a high rating to learning how to do a particular job. These career-related program elements are important to this group of students. Improving skills in working with adults was also a

TABLE 34

STUDENTS'RATINGS OF
AMOUNT LEARNED IN EDISON EBCE PROGRAM

LEARNING AREA 4-point scale: 1=Nothing 4=A lot	Edison EBCE STUDENTS (N = 32)		
	Rank	Mean	S.D.
Learning about careers and jobs	1	3.59	.67
Planning for a career or careers	2.5	3.34	.83
Improving skills in working with adults	2.5	3.34	.90
Learning how to do a particular job	4	3.31	.96
Thinking through and solving problems	5	3.28	.85
Accepting many different ideas and backgrounds of people	6	3.28	.89
Learning job-seeking skills	7	3.19	.93
Improving reading skills	8	3.10	1.14
Improving listening and speaking skills	9	3.03	.88
Improving skills in working with other students	10	2.94	1.04
Improving writing skills	11	2.91	1.06
Improving math skills	12	2.53	1.11

highly-rated area. In contrast, working with other students was seen as an area where less was learned. Improving basic skills (reading, writing, and math) and improving communication skills were rated relatively low. This might well reflect the individualized nature of FWL-EBCE: some students may not have felt the need for improvement in these areas. It is also interesting to note that the raw data indicate that all students reported learning at least "a little" about listening and speaking skills.

Information on changes students perceived in themselves that were a result of EBCE was also collected at end-of-year. Students were asked to list three ways in which they had changed as a result of EBCE. The analyses of their responses are presented as Table 35. Findings may be summarized as:

1. The most frequently given area of change was in self-growth (such as increased responsibility or improved self-confidence). About one third of the responses fell in this area.

2. With 29 students responding, there was a total of 16 responses mentioning positive change in the interpersonal area. Therefore, only about one half of the students gave responses in this area (more than one of these 16 responses may have been from the same student).

3. Twelve percent of the responses (a total of nine) either expressed the feeling that there had been no change or a change for the worse.

4. Other areas of change were mentioned infrequently (this is consistent with other pilot sites).*

*It is of interest to note that students in EBCE are not likely to stress changes in themselves in the learning/academic areas (such as learned more math or got ready for college). It is quite possible that the responses are affected by the construction of the items, which asked for "ways you have changed" rather than "what you have learned." A higher frequency of responses indicating change in learning/academic areas by students in regular school programs was noted by FWL in its Final Evaluation Report FY1975.

TABLE 35

SELF-REPORT BY EDISON EBCE STUDENTS ON WAYS CHANGED AS RESULT OF SCHOOL PROGRAM

Areas of Change	Edison EBCE	
	Frequency* (N = 29)	Percent
Self-growth	24	32
Career/work	5	7
Learning/academic	9	12
Interpersonal	16	22
Future planning	5	7
No change/negative change	9	12
Other	6	8
TOTAL Responses	74	

*Students were asked to name up to three changes so the number of responses is greater than the number of students.

Students' Participation in Career-Oriented Activities. Most Edison students expressed an interest in learning about careers as a reason for entering the program, and, in fact, stated that they had been successful in learning about careers, as has been shown in Tables 33 and 34. In an attempt to ascertain the scope of career-related activities, the students were asked to, at the end of the year, complete a self-report instrument, the New Mexico Career-Oriented Activities Checklist (COAC).** The COAC contained 25 multiple-choice

**The COAC has the following student objective: the student has taken important steps in order to help make an occupational decision. Its sub-objectives are:

1. The student has considered various sources of information about occupations;
2. The student has engaged in activities that would provide information about occupations the student is considering;
3. The student has obtained the high school training needed for the occupations being considered; and
4. The student has made definite plans regarding what will be done upon graduation.

Most of the listed activities can be carried out within a school setting; only a few would be enhanced by community experiences.

items, most of which ask the student to check if he has participated in either, both, or neither of two listed activities. The total possible score, from a combination of one- and two-point items, is 47 points. The instrument was administered to 45 of the 56 students in the end-of-year group (those enrolled for two or more quins in the program). In addition, ten new students enrolled for nine weeks or less completed the instrument.*

The availability of data from this group of new program entrants allowed a comparison of scores based on time enrolled in the program: one quin, two quins, and three or more quins. It was felt that if the program was providing career experiences, the COAC score would be related to time enrolled in the program.

Table 36 shows the distribution of scores for the total group of 55 students who completed the instrument. There was a broad range of scores (35 points) with no evidence of topping out in spite of the fact that it was easy for students to fake responses in order to obtain a high score. The median score of 26.2 was slightly more than one half of the total possible score of 47.

TABLE 36

DISTRIBUTION OF SCORES ON THE NEW MEXICO
CAREER ORIENTED ACTIVITIES CHECKLIST
FOR ALL EDISON STUDENTS COMPLETING INSTRUMENT

Score (maximum possible score = 47)	frequency
0-9	2
10-19	11
20-29	20
30-39	19
40-43	3

Median: 26.20
Mean: 25.56
S.D.: 9.28

*These students are not included in the end-of-year group defined in Table 6 and are not included in the report except in this description of the COAC.

The COAC score was further analyzed by grade, sex, and length of time enrolled in the program. Intercorrelations among these variables are shown in Table 37. For the total group of students, the COAC score was not significantly related to the time in the program or to sex of the respondent. However, it was strongly related to grade level. (There was also a positive, although less strong, relationship between grade level and length of time in the program.)

TABLE 37

INTERCORRELATIONS AMONG THE COAC SCORE AND STUDENT VARIABLES, EDISON EBCE

Variables	Edison EBCE (N = 55) Correlations		
	Grade	Sex	Time in Program
COAC Score	.35**	.03	.15
Grade	--	-.08	.23*
Sex		--	.18
Time in Program			--

*Significant at the .05 level.
**Significant at the .01 level.

Nine of the ten new students were enrolled in grades ten and eleven. The mean COAC scores for tenth and eleventh graders were 21.6 and 26.6, respectively. Table 38 shows the difference between COAC scores based on enrollment time in the program for the group of 10th and 11th graders.*

*A t test showed no significant difference (.05 level or below) between COAC scores of tenth and eleventh grade students. A one-way analysis of variance showed no significant difference (.05 level or below) in COAC scores based on length of enrollment.

TABLE 38

RELATIONSHIP BETWEEN ENROLLMENT TIME
AND COAC SCORES, EDISON EBCE

Category	Edison EBCE Tenth and Eleventh Grade Students (N = 33)		
	Quins Enrolled		
	1 N = 9	2 N = 19	3 or more N = 5
Mean COAC Score	22.11	25.05	26.40
Standard Deviation	6.59	9.62	6.84

There is a slight but definite trend toward higher scores based on time enrolled for tenth and eleventh grade students. In contrast, twelfth-grade students had a mean score of 29.7 with little differentiation between those enrolled for two quins or for more than two. The one twelfth-grade student who had been enrolled for only one quin had a score of 38. This high score merely reinforces the impression that the COAC score is strongly related to age -- as students approach the end of their high school years, they are likely to engage in career-oriented activities regardless of the type of program in which they may be enrolled; entrance into EBCE may signify one way to engage in such activities. Younger students, who are not ordinarily exposed to such activities in their regular program, are more likely to show an increased level of participation in career-oriented activities if they are exposed to such activities through lengthy participation in a program such as EBCE.

In conclusion, examination of the COAC test scores for the total group of Edison students who took the test identifies certain features of the test: it is strongly related to grade level; not related to gender of respondent; and not related to time enrolled in the program when the total group is considered. Also, the relative low mean and median scores on this easily-faked test and the large standard deviation indicate that students vary widely in the degree of participation in career-oriented activities, and in general have not yet fully accomplished the set of tasks described in the test.

There is a trend toward higher COAC scores for those tenth and eleventh grade students who have been enrolled longer in the program. It is not possible

to show significant differences among these groups; contributing factors were the smaller number of students in each group and the large standard deviation within groups. Also, there is a minimum time span involved for attempting to show change over time -- a difference of nine weeks of participation in most cases.

The test results are promising in terms of demonstrating the usefulness of the test instrument and in identifying certain EBCE groups (younger students, those enrolled more than one semester) who may show increased participation in career-oriented activities.

Data Common to All Pilot Sites

Data collected across all pilot sites provide further clarification of the nature of FWL-EBCE program implementation and outcomes. The data in this section are presented by source of information: students, parents of students, and participating resources. Within each section, data for these pilot sites are presented in parallel so that the reader can examine concurrently three samples of similar data. Again, however, the reader is reminded of the unique factors and circumstances related to each site (i.e., differences in the programs' physical location, goals emphasis, degrees of model fidelity, and students' characteristics) and warned against using the data presented to rank the relative degree of success attained by the three pilot sites.

Student Data.

Enrollment and Attrition. Enrollment patterns of the Highland and Edison programs were similar: both began with smaller program sizes and increased their enrollments during the year. Pacific Horizons began the year with an excess of students (88 compared to its target of 70) and converged to the intended size. Enrollment at Highland EBCE was very stable -- of the 65 different students enrolled at some time during the year, 53 were in the program at year-end. The program (11-12 grades only) graduated 30 students during the year. Pacific Horizons began the year with a group of students of whom most expected a different, workshop-oriented curriculum (but with the same goals). During the year, the program experienced a large number (50) of transfers back to regular schools and seven students dropped entirely from high school. Students were recruited to replace program leavers. Most of the students at Pacific Horizons High School are in the tenth and eleventh grades; the program graduated 14 students from its average enrollment of 70+. The school year at Edison High School is divided into four nine-week terms and enrollment varied each term. There were 125 different students enrolled in the program during the year, 85 of whom remained at year-end. The program graduated 40 students during the year. Table 39 aggregates the enrollment and attrition statistics for the three pilot sites.

Students were asked to rate (at entry) the importance to them of each of a group of reasons for enrolling in EBCE. The mean and ranking of the student ratings for each site as well as the mean ranking across the three sites are

TABLE 39

ENROLLMENT AND ATTRITION STATISTICS FOR THE FWL-EBCE PILOT SITES: SCHOOL YEAR 1975-76

PILOT SITE	Number of Terms	Different Students	Transfers to Regular School	Drops from high school	Graduates	Beginning of year Enrollment	End of year Enrollment
Highland HS EBCE	2	65	8	1	30	29	53
Pacific Horizons HS	2	116	50	7	14	88	74
Edison HS EBCE	4	125	31	0	40	43	85

shown in Table 40. The data show the five highest-rated reasons are common to students at all sites: to learn things I want to learn; to develop plans for after high school; to find out more about careers; to find out more about my own values, interests, needs and goals; and to have more responsibility and independence. There is also close agreement on the five least important reasons for entering EBCE: to get away from problems at my previous school; to make new friends; to have more individual attention; to get help in finding a job; and to work with adults in the community.

Relative Helpfulness of EBCE and Former School Programs. When students entered the EBCE program, they were asked to rate ("pre") the helpfulness of their former schools (i.e., the programs that they attended the previous year) in five areas: preparation for work; preparation for college; future planning; understanding of self; and getting along with others. At the end of the year, they were asked to rate ("post") the helpfulness of their school this year in the same areas.* A t-test was used to detect significant differences between the pre- and post-means of the two response-distributions for each of the five items. Results are shown in Table 41. On four of the five ratings, there were significant differences between pre- and post-means for student ratings at all three sites. Only in "preparation for college" was this not the case; means of ratings by students at Pacific Horizons and Edison EBCE showed no significant difference in that area. The item that was ranked highest by Highland EBCE and Pacific Horizons students, "helped me to get along with others," was rated much lower by Edison EBCE students, although still significantly better than their previous programs. Overall, this table shows an impressive degree of confidence in the EBCE programs on the part of the students.**

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*It should be noted that both Highland EBCE and Edison EBCE students still spend a proportion of their time in the regular school environment (where their programs are physically located). In fact, Highland students spend most of their "at school time" in the EBCE program area, whereas Edison students spend only part of their day in the program area, the remainder in using the regular facilities (e.g., language laboratory, math laboratory) of the school. Thus, ratings of "school" will be based on a different set of experiences for each of the groups of students from the three sites.

**Parents also rated the same items at the end of the year; their ratings are presented in Table 53.

TABLE 40

A SITE-BY-SITE COMPARISON OF REASONS GIVEN BY STUDENTS FOR ENROLLING IN THE EBCE PROGRAM

Reasons for Enrolling (rated on 3-point scale: 1=not important, 3=very important)	Highland N=52		Pac. Hcr. N=62		Edison N=46		Mean of means for 3 sites	Rank
	Mean	Rank	Mean	Rank	Mean	Rank		
To learn things that I want to learn	2.79	1	2.85	3	2.87	1	2.84	1
To develop plans for after high school	2.77	2.5	2.84	4	2.85	2	2.82	2.5
To find out more about careers	2.77	2.5	2.92	1	2.78	4.5	2.82	2.5
To find out more about my own values, interests, needs and goals	2.67	4	2.87	2	2.80	3	2.78	4
To have more responsibility and independence	2.60	5	2.75	5	2.78	4.5	2.71	5
To have learning activities outside of the classroom	2.53	6	2.61	9	2.69	6	2.61	6
To get into a program different from regular school	2.42	7.5	2.68	6	2.67	7	2.59	7
To improve my skills in meeting and dealing with adults	2.40	9	2.67	7	2.55	10	2.54	8
To get job training	2.17	11	2.65	8	2.62	8	2.48	9
To plan my own learning program	2.42	7.5	2.38	11	2.60	9	2.47	10
To work with adults in the community	2.29	10	2.56	10	2.40	11	2.42	11
To get help in finding a job	1.86	13	2.25	13	2.31	12	2.14	12
To have more individual attention	1.77	15	2.30	12	2.25	13	2.11	13
To make new friends	1.86	13	2.07	14	2.07	14	2.00	14
To get away from problems at my previous school	1.86	13	1.95	15	1.80	15	1.87	15

TABLE 41

COMPARISON OF HELPFULNESS OF CURRENT AND FORMER SCHOOL PROGRAMS

ITEM 4-point Scale 1 = Strongly Disagree 4 = Strongly Agree		Highland High School N = 51		Pacific Horizons High School N = 62		Edison High School N = 24	
		Last Year	This Year	Last Year	This Year	Last Year	This Year
School helped me to get along with others	Mean	2.78	3.40	2.65	3.40	2.52	3.00
	S.D.	.84	.73	.89	.56	.59	.85
t-Test		3.97**		6.77**		2.71*	
School helped me to understand self	Mean	1.88	3.16	2.38	3.30	2.25	3.17
	S.D.	.86	.81	1.04	.50	.99	.87
t-Test		8.75**		5.97**		3.70**	
School helped me to plan future	Mean	1.80	3.10	2.26	2.92	2.43	3.26
	S.D.	.86	.79	1.01	.78	1.03	.92
t-Test		7.46**		3.99**		3.22**	
School helped prepare for work	Mean	2.06	3.12	2.13	2.80	2.21	3.00
	S.D.	.84	.68	.81	.73	.78	.59
t-Test		6.64**		5.03**		3.65**	
School helped me to prepare for college	Mean	2.58	3.04	2.37	2.48	2.67	3.04
	S.D.	.64	.70	.85	.82	.70	.86
t-Test		3.58**		0.69		1.68	

*Significant at .05 level
**Significant at .01 level

Attitudes Toward School and EBCE. Table 42 presents data on the ratings of students at the pilot sites on three questions related to their attitude toward EBCE:

1. If you had it to do over, would you participate in the EBCE program?
2. How did you like the way of learning (relating study to experiences at resource sites) that is used in the EBCE program?
3. In comparison with your past experiences, how motivated to learn were you in the EBCE program?

Group means on all items are high (over 4.0 out of 5.0 possible) indicating that the students as a group are highly supportive of EBCE. Responses at Highland are uniformly positive (only one response is below midpoint, that on question 3). Nearly all Edison students also were positive; only four negative ratings were given in response to the questions. A small group (approximately 10%) of Pacific Horizons students gave negative ratings to the questions. The means on each question were highest at Highland EBCE and lowest at Pacific Horizons.

EBCE students were asked at the beginning of the school year to rate their feeling about school (1) during the previous year (1974-75) and (2) during the years prior to that. This "pre-test" information was matched to "post-test" information collected from the EBCE students through ratings of their feelings about school during the immediately ended (1975-76) school year. Table 43 presents the means and standard deviations for the distributions of responses, along with the results of t-tests for the significance of difference between means. The t-tests for two sites (Highland EBCE and Pacific Horizons) were significant at the .01 level; both groups showed a preference for EBCE. The t-tests for the responses of Edison EBCE students showed no significant differences between means. Several program factors may be hypothesized to account for differences in outcomes of the t-tests:

1. Highland EBCE students remained in familiar surroundings, but with a curriculum change for which they volunteered. An environment fostering positive attitudes existed there.
2. Pacific Horizons students had been turned off with regular school and had sought a new learning enviornment. The program, with its location apart from other schools, provided what they sought.

TABLE 42

ATTITUDES OF STUDENTS AT PILOT SITES TOWARD THEIR EBCE PROGRAMS

ITEM 5-point scale 1=definitely no, or very little 5=definitely yes, or very much	Pilot Site	FREQUENCY						Mean	S.D.
		1	2	3	4	5	Omit		
1. If you had it to do over again, would you participate in the EBCE program?	Highland	0	0	4	3	45	0	4.79	.57
	Pac. Horizons	1	6	8	17	40	1	4.24	1.04
	Edison	1	0	4	5	20	2	4.43	.97
2. How do you like the way of learning (relating study to experiences at resource sites) that is used in the EBCE program?	Highland	0	0	1	14	36	1	4.69	.51
	Pac. Horizons	1	6	11	22	33	0	4.10	1.03
	Edison	0	1	2	8	21	0	4.53	.76
3. In comparison with your past experiences, how motivated to learn were you in the EBCE program?	Highland	0	1	4	19	26	2	4.40	.73
	Pac. Horizons	5	3	9	20	36	0	4.08	1.19
	Edison	1	1	6	6	18	0	4.22	1.07

TABLE 43

ATTITUDE TOWARD SCHOOL IN CURRENT AND PREVIOUS YEARS

ITEM 5-point Scale 1 = Disliked almost everything about it 5 = Liked almost everything about it		Highland High School N = 51	Pacific Horizons High School N = 62	Edison High School N = 26
How did you feel about school last year? (PRE)	Mean	3.14	3.29	3.42
	S.D.	1.13	1.25	1.14
How did you feel about school this year? (POST)	Mean	3.98	3.95	3.62
	S.D.	1.12	1.02	1.58
t-Test		4.12**	3.34**	0.50
How did you feel about school in the years before last year? (PRE)	Mean	3.24	2.76	3.54
	S.D.	1.16	1.20	.99
How did you feel about school this year? (POST)	Mean	3.98	3.95	3.62
	S.D.	1.12	1.02	1.58
t-Test		3.63**	6.21**	0.21

**Significant at .01 level

3. Edison EBCE students were mostly one of two types: students already at Edison who remained largely in the same atmosphere, or cross-town, white students coming to an unfamiliar, mainly black high school.* Environmental factors conducive to more positive attitudes toward school are not particularly evident there.

More detailed information on EBCE students' attitudes toward school and learning was sought at the end of the year. A set of 30 statements (called the School Opinion Scales) was given to students, who were asked to rate each statement on a five-point ("strongly disagree" to "strongly agree") measure. The statements were related to five "scales" (categories):

1. Student autonomy and responsibility for decision-making. Ten items having to do with independence, freedom to make choices, and staff acceptance of students.

2. Long-term attitude toward school. Six items reflecting attitudes toward school (in the generic sense).

3. Peer-related attitudes. Six items showing reactions to peers.

4. Staff-related attitudes. Eight items referring to attitudes about EBCE staff and related feelings about EBCE.

Scale scores were computed by reversing the polarity of negative items and then summing the ratings for the items on each scale. Therefore, all ratings were in a "school positive" direction, i.e., high scores represented positive feelings toward school (scale 2) or toward current program (scales 1, 3, and 4). The results are shown in Table 44.

Students at Highland EBCE and Pacific Horizons were clearly rating the EBCE program** and there were strong similarities in their ratings. Both groups rated the "student autonomy" scale most highly, recognizing the availability of these elements in the program. Mean ratings for both the "peer attitudes" and

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*Perhaps of strongest evidence for the interest of EBCE to students in Fresno is the fact that the Edison program did succeed in one of its primary district functions: to serve as a magnet program in the district's plan for integration of Edison High School.

**Ratings for the three sites are not directly comparable. Highland staff changed the items on scales 1, 3, and 4 to read "EBCE program" rather than "this school" because of the possible confusion that might result from the program being located within a school building. Edison students, on the other hand, rated the items in terms of "this school" although EBCE is a part of a larger school. Pacific Horizons students, located in a separate building, had no difficulty in rating the "EBCE program" as "this school."

TABLE 44

STUDENTS' ATTITUDES TOWARD SCHOOL AND LEARNING

Scale	N Items	Highland N = 52			Pacific Horizons N = 73			Edison N = 32		
		Mean	S.D.	Mean / N Items	Mean	S.D.	Mean / N Items	Mean	S.D.	Mean / N Items
1. Student autonomy, decision making	10	44.77	3.27	4.48	41.97	3.77	4.20	37.07	7.27	3.71
2. Attitude toward school, education (long term)	6	21.75	3.93	3.63	22.84	3.67	3.80	20.34	4.29	3.39
3. Peers	6	23.87	3.61	3.98	23.90	3.31	3.98	19.75	4.40	3.29
4. Staff	8	32.17	4.16	4.02	29.37	4.07	3.67	26.68	5.34	3.34
TOTAL	30	122.56	11.63	4.09	118.08	11.72	3.94	103.84	18.63	3.46

the "long-term school attitude" scales were nearly the same for the two programs. Highland students felt more positive about staff than did Pacific Horizons students. Edison students had considerably lower means than the students from the other two sites on all four scales; even so, their mean ratings were all greater than the scale midpoint. Edison students also gave the highest mean rating to the scale "student autonomy."

Because the items were not given in a pre-test, it is not possible to ascertain what changes in attitudes may have taken place over the year. It is evident, however, that students responded positively to most items, were least positive about items reflecting long-term attitudes, and were most positive about the independence and choice-making allowed in the EBCE program. There were some noticeable differences among sites in attitudes toward staff and peers. Highland students ratings were high for both scales (means of 3.98, 4.02, respectively). The mean ratings by Edison students (as for Highland students) on these two scales were nearly equal (3.29, 3.34, respectively) but were much lower in value. Pacific Horizons rated the staff-related attitudes scale much lower than the peer-related attitudes scale (means of 3.67, 3.98, respectively). It is likely that these differences reflect differences in both the school settings (type of students and staff) and in the school structures.

Credits Earned. A postulate of FWL-EBCE is that students will earn academic credits and that the major vehicle for earning these credits is the project. It has been observed in the past that students require some time after entry to acclimatize to EBCE.* The length of time varies by student. Considering the community-based, student-directed nature of the program, the student's level of "maturity" at entry into the program has been considered an important variable in determining the length of time necessary for the student to learn to function effectively in the system. At each of the pilot sites, data on credits earned by students were collected and analyzed in order to determine if students were earning project credits and if credits earned were related to length of time enrolled or grade level.

Because each pilot site had its own (district) structure for credit assignment, the data on credits earned by EBCE students cannot be directly compared across sites. The sites differ not only on the measures used to document

*See FWL-EBCE Final Evaluation Report FY1974, Vol. 1, pp. 165-180. The model provides for an orientation period for new students in the fall semester.

TABLE 45

HIGHLAND CREDITS EARNED BY TIME ENROLLED

Type of Credit	Highland EBCE Students (N = 52)						
	Mean Credits Per Semester				Significance test based on time enrolled*		
	Enrolled One Semester		Enrolled Two Semesters				
	11th Grade N=17	12th Grade N=11	11th Grade N=5	12th Grade N=19	Enrolled One Semester N=28	Enrolled Two Semesters N=24	t-value
Project Credit	1.96	2.09	1.42	2.24	2.01	1.07	.17 (NS)
Supplementary Curriculum Credit	.33	.80	.20	.39	.51	.35	.06 (NS)
Total Credit (including P.E.)	2.71	3.11	2.01	2.99	2.86	2.78	.20 (NS)

*t-test comparisons of credit earned by grade level were not significant.

TABLE 46

PACIFIC HORIZONS CREDITS EARNED BY TIME ENROLLED

Type of Credit	Pacific Horizons Students (N = 73)								
	Mean Credits Per Quarter						Significance test based on time enrolled*		
	Enrolled One Semester			Enrolled Two Semesters					
	10th Grade N=14	11th Grade N=9	12th Grade N=1	10th Grade N=14	11th Grade N=25	12th Grade N=10	Total One Semester N=24	Total Two Semesters N=49	t-value
Project Credit	5.25	3.94	0.00	4.76	6.74	8.13	4.54	6.45	1.70 (NS)
Supplementary Curriculum Credit	2.89	4.28	1.00	2.80	2.64	1.75	3.33	2.51	1.31 (NS)
Total Credit (including P.E.)	10.89	10.72	1.00	9.85	11.81	12.38	10.41	11.37	.65 (NS)

*A one-way analysis of variance for each type of credit by grade level showed no significant differences among credits earned by grade level alone.

TABLE 47

EDISON CREDITS EARNED BY TIME ENROLLED

Type of Credit	Edison EBCE Students (N = 54)								
	Mean Credits Earned Per Quin						Significance test based on time enrolled*		
	Enrolled Two Quins			Enrolled Three or More Quins					
	10th Grade N=6	11th Grade N=14	12th Grade N=22	10th Grade N=3	11th Grade N=2	12th Grade N=7	Total Two Quins N=44	Total Three or More Quins N=12	t-value
Project Credit	4.79	6.00	7.49	8.62	4.40	3.25	6.52	4.78	1.24 (NS)
Supplementary Curriculum Credit	2.38	1.39	1.63	4.75	3.04	2.50	1.75	3.15	-1.90 (NS)
Total Credit (including P.E.)	9.04	9.73	10.30	15.88	9.94	6.41	9.98	9.36	.26 (NS)

*A one-way analysis of variance for each type of credit by grade level showed no significant differences among credits earned based on grade level alone.

credit (e.g., Carnegie units) but also in the length of terms (e.g., semesters, quarters). Therefore, the analyses presented are restricted to examining intra-site relationships. Three relationships were studied: (1) credits earned and length of enrollment; (2) credits earned and grade level; and (3) project credits earned and supplementary credits earned. The resulting data analyses are presented for Highland EBCE students in Table 45; for Pacific Horizons students in Table 46; and for Edison EBCE students in Table 47.

Results of t-tests applied to the data in the tables showed no significant differences between the means of credits earned by students at different grade levels and no significant differences between the means of credits earned by students with differing lengths of enrollment. These data provided no evidence supporting the observations in previous years of differential performance based on grade level at entry and length of time in the program.

The percentages of credit* earned by students through project activities and through supplementary curriculum activities are shown by Table 48. These data showed that all three sites awarded a majority of credits through student projects. At both Highland EBCE and Pacific Horizons, students increased their proportion of credits earned through projects as they remained longer in those programs. This trend was not followed at Edison EBCE.

TABLE 48

RATIO OF PROJECT CREDIT TO SUPPLEMENTARY CREDIT AT PILOT SITES.

Category	Highland EBCE		Pacific Horizons		Edison EBCE	
	Enrolled One Semester N=28 %	Enrolled Two Semesters N=24 %	Enrolled One Semester N=24 %	Enrolled Two Semesters N=49 %	Enrolled Two Quins N=44 %	Enrolled Three or More Quins N=12 %
Project Credit	80	86	58	72	79	60
Supplementary Curriculum Credit	20	14	42	28	21	40

*Physical education credits have been removed for this analysis.

Amount of Program Participation. The different structures of the three pilot programs resulted in different targets for desired amount of student participation. At Pacific Horizons, the "continuation" status of this high school established as a legal weekly minimum 15 hours per week of school involvement by each student. (The staff obtained a special dispensation from the Stockton Unified School District to operate as a 30 hour per week program and students were strongly encouraged to participate at this higher level.) At Edison EBCE, the target was for 25 hours per week of school involvement by each student; this included EBCE and other school activities (which varied by student). At Highland EBCE, the target was also 25 hours per week of program involvement by the student; this represented the student's total school program. The FWL-EBCE standard for community-related activities is 30% of the student's total program time. This corresponds to 7.5 hours weekly at Highland EBCE and Edison EBCE, and to 4.5 hours weekly at Pacific Horizons (based on the 15 hours per week legal minimum).

Information on the amount of time spent by students in EBCE-related activities at each of the pilot sites was available through weekly student self-reports (Student Activity Reports). A summary of external (community), internal (school-located), and total EBCE-related time reported* by students at each of the pilot sites for the spring, 1976 terms(s) is shown by Table 49. (Data in the table are presented as means. The distributions are positively skewed with a few students reporting exceptionally high levels of activity.) The data show that the amount of time spent by students in both the community and other EBCE-related activities did, in fact, vary by site. Noting the differences in program structure mentioned above, the data indicate that (as groups) students at the sites did report EBCE involvement of the amount desired, and that (as groups) they were engaged in activities in the community close to, or above, the standards established. Highland EBCE students exceeded their set standards for both community and total program activities; Pacific Horizons students exceeded the legal minimum (although not the desired target) for total program activity while falling below the standard for community involvement; Edison EBCE students fell slightly below on both community and total activity standards, but these students generally did not report their school activities outside EBCE.

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*Not all students reported their time every week; however, week-by-week figures were compiled and were relatively constant. The summary figures are, therefore, assumed representative.

TABLE 49

SUMMARY OF HOURS PER WEEK BASED ON TOTAL STUDENT ACTIVITY REPORTS FOR SPRING TERM(S).

Hours in Program, Spring Semester	Highland	Pacific Horizons	Edison
Mean Hours, per week, in External (community) Activities	9.67	4.29	5.98
Mean Hours, per week, in Internal Activities (including P.E.)	18.57	18.21	15.81
Mean Total Hours, per week, in Program Activities	28.24	22.50	21.79
TOTAL N of Students*	56	82	102
TOTAL N of Reports	911	845	849

*This Table summarizes all weekly reports turned in by all students in attendance during the Spring Semester, Quarters, or Quins. Some of these students were excluded from the end-of-year group because they had left the program or for other reasons had not completed end-of-year testing.

Tables 50, 51, and 52 provide insight into the relationship between the amount of student-reported activity and the amount of credit earned for Highland EBCE, Pacific Horizons, and Edison EBCE, respectively. At Highland EBCE, those students reporting high (above the median) hours in internal (or total) activities earned more credit than those reporting low (below the median) hours. The group of students at Highland EBCE reported the highest number of hours in external (community) activities of any of the three pilot sites, but these hours were not significantly related to project credits. At Pacific Horizons, those students reporting high hours in either internal or external activities earned significantly more project credit than those reporting low hours in these activities. At Edison EBCE, students reporting high hours in internal activities (and thus in total activities) earned significantly more project credit than those students reporting low hours in internal activities. Although projects

TABLE 50

RELATIONSHIP BETWEEN HOURS SPENT IN PROGRAM ACTIVITIES AND CREDITS EARNED AT HIGHLAND EBCE.

Hours In Program, Spring Semester	Highland EBCE Program				
	Basis For High/Low Split		Mean Credit Spring Semester		
	Hours Per Week	N Per Group	Project	Supplementary Curriculum	TOTAL (including P.E.)
External Hours					
Low	below 9	26	1.70	.62	2.65
High	9 and above	26	1.96	.30	2.67
t-value			1.45	2.07*	.07
Internal Hours					
Low	below 20	26	1.48	.34	2.13
High	20 and above	26	2.18	.58	3.18
t-value			4.49**	1.51	4.84**
Total Hours					
Low	below 28	25	1.56	.43	2.26
High	28 and above	27	2.09	.49	3.03
t-value			3.13**	.32	3.26**

*Significant at .05% level.
**Significant at .01% level.

TABLE 51

RELATIONSHIP BETWEEN HOURS SPENT IN PROGRAM ACTIVITIES AND CREDITS EARNED AT PACIFIC HORIZONS

Hours in Program, Spring Semester	Pacific Horizons Program				
	Basis For High/Low Split		Mean Credit Per Semester		
	Hours Per Week	N Per Group	Project	Supplementary Curriculum	TOTAL (including P.E.)
External Hours					
Low	below 3	39	4.21	2.88	9.48
High	3 and above	34	7.68	2.65	12.86
t-value			3.48**	.38	2.58**
Internal Hours					
Low	below 18	39	4.05	2.69	9.23
High	18 and above	34	7.86	2.87	13.14
t-value			3.81**	.30	3.02**
Total Hours					
Low	below 22	41	3.92	2.67	9.10
High	22 and above	32	8.27	2.92	13.56
t-value			4.36**	.42	3.49**

**Significant at .01% level.

TABLE 52

RELATIONSHIP BETWEEN HOURS SPENT IN PROGRAM ACTIVITIES AND CREDITS EARNED AT EDISON EBCE

Hours In Program	Edison EBCE Program				
	Basis For High/Low Split		Mean Credit Per Quin		
	Hours Per Week	N Per Group	Project	Supplementary Curriculum	TOTAL (including P.E.)
External Hours					
Low	below 4	25	4.75	2.14	8.36
High	4 and above	25	6.61	2.15	10.42
t-value			1.83	.02	1.46
Internal Hours (including P.E.)					
Low	below 15	22	4.45	1.03	6.79
High	15 and above	28	6.64	3.01	11.44
t-value			2.16*	3.16**	3.60**
Total Hours					
Low	below 20	26	4.09	1.78	7.25
High	20 and above	24	7.40	2.54	11.72
t-value			3.52	1.12	3.45**

*Significant at .05% level.
**Significant at .01% level.

involved activities at resource sites, they also involve activities at the school site -- preparation of products, reading, project planning seminars, etc. It may be that differences in the amount of these internal activities were more closely associated to the earning of credit than were differences in the amount of community activities.

Chi-square tests showed no significant relationship between low or high student-reported hours of involvement per week and with sex, grade level, or length of enrollment, with one exception: Pacific Horizons students who have been in the program over one semester or are at a high grade level report more total hours of EBCE-related activity than those who have not (this was noted in Table 28 and discussed previously).

Parent Data. At the end of the year, parents of students at each of the pilot sites* were asked to rate the helpfulness of the program to their children in five areas related to students' self-development, career development or academic learning as shown in Table 53. Students' ratings of these items were given by Table 41. The items in the table are presented in the order that they were ranked by students. Several conclusions can be drawn: (1) both groups of parents were favorable in their ratings of EBCE helpfulness; (2) mean ratings by Highland parents were higher than those by Pacific Horizons parents; and (3) parents of students at Pacific Horizons ranked the items in an order similar to the rankings given by the students. There was less agreement between parents and students at Highland.

Parents were also asked to rate the EBCE program staff on four items relating to staff communications and performances (Table 54). From the statistics in the table, it is seen that: (1) item means for Highland parents were higher than those for Pacific Horizons parents on all four items; (2) parents felt that the staffs had been effective in planning learning programs that were suited to students' needs and in handling those problems that developed with individual students during the year; and (3) parents were less positive that they received all the information they wished about the program and about the students' progress in the program. The means for the latter two item-rankings were still quite positive for Highland parents, but were near scale midpoint for Pacific

*This section presents data from parents of students at Highland EBCE and Pacific Horizons. Because only 12 questionnaires were received from parents of students at Edison, data from this group were not included.

TABLE 53

PARENTS' PERCEPTIONS OF HELPFULNESS OF EBCE PROGRAM

ITEM 4-point scale from (1) = Strongly disagree to (4) = Strongly agree	Highland Parents N = 41		Pacific Horizons Parents N = 65	
	Mean	S.D.	Mean	S.D.
School helped to get along with others	3.32	.69	3.16	.62
School helped understand self	3.37	.62	3.15	.68
School helped plan future	3.18	.68	2.91	.73
School helped prepare for work	3.31	.57	2.97	.75
School helped prepare for college	3.00	.72	2.65	.95

TABLE 54

PARENTS' RATINGS OF STAFF COMMUNICATION AND STAFF EFFECTIVENESS

ITEM 5-point scale 1=Definitely no 5=Definitely yes	Highland N=43		Pacific Horizons N=66	
	Mean	S.D.	Mean	S.D.
Was the EBCE staff effective in helping the student plan a learning program suited to his/her needs?	4.56	.63	3.77	1.21
Was the staff effective in handling any problems that developed with the student during the school year?	4.44	.82	3.80	1.24
Did you get all the information you wanted about the EBCE program?	4.07	1.26	3.17	1.41
Did you get all the information you wanted about the student's progress and performance in EBCE?	3.91	1.48	2.97	1.43

Horizons parents. The distribution of ratings on these two items showed a large standard deviation indicating a broad range of opinion.

The difference in satisfaction with the amount of program-related information shown by the two groups of parents is reflected in the frequency of contact with EBCE staff that was reported by parents (Table 55). On four of the five items, the Highland parents reported more contacts with the school staff: 98% of the Highland group had received both general correspondence (compared to 56% of parents at Pacific Horizons) and reports about their student from the school (compared to 51% of parents at Pacific Horizons); they also had received more telephone calls (80% compared to 61%) and had more individual meetings with staff members (64% compared to 49%). It appears that Highland parents had access to more information about what was happening in the school program than did parents at Pacific Horizons.

TABLE 55

PARENTS' REPORT ON TYPE OF CONTACTS WITH SCHOOL STAFF

TYPE OF STAFF CONTACT WITH PARENTS	Highland N=43		Pacific Horizons N=66	
	Never %	Once or more %	Never %	Once or more %
Telephone conversation	20	80	39	61
Individual meeting	36	64	51	49
Group parents' meeting	71	29	62	38
Mailed correspondence, general	2	98	44	56
Written reports or correspondence about student	2	98	49	51

Parents of students were asked to summarize their feelings about the EBCE program by responding (on a five-point scale) to two questions:

1. How does the EBCE program compare with other school programs which your son/daughter has attended?; and

2. If you had it to do over again, would you want your son/daughter to participate in the EBCE program?

The summary of responses of parents to these two questions are presented by Tables 56 and 57. The data show that there was a small group of parents of students at Pacific Horizons strongly dissatisfied with that program; seven Pacific Horizons parents (out of 68) rated the program as much worse than previous programs and ten parents definitely would not want their son/daughter to participate if given the decision again. This group had a strong effect on the item means. Nevertheless, most (43 out of 68) Pacific Horizons parents indicated a preference for EBCE over the previous programs of their son/daughter, and most (44 out of 68) indicated they would want their child to attend EBCE if given the decision again. Almost all (36 out of 43) Highland parents felt the EBCE program was better for their sons/daughters than previous programs and almost all (38 out of 43) would again choose for their sons/daughters to attend EBCE.

TABLE 56

PARENTS' RATING OF EBCE WITH PREVIOUS SCHOOL PROGRAMS OF THEIR SON/DAUGHTER.

How does the EBCE program compare with other school programs which your son/daughter has attended?	Frequency of Response (1=much worse; 5=much better)						Mean	S.D.
	1	2	3	4	5	Omit		
Highland EBCE Parents (N=43)	0	1	3	14	22	—	4.43	.75
Pacific Horizons Parents (N=68)	7	0	15	17	26	3	3.85	1.27

TABLE 57

PARENTS' RATING OF RECONSIDERING THEIR DECISIONS TO ALLOW THEIR SON/DAUGHTER TO PARTICIPATE IN EBCE.

If you had it to do over again, would you want your son or daughter to participate in the EBCE program?	Frequency of Response (1=definitely no; 5=definitely yes)						Mean	S.D.
	1	2	3	4	5	Omit		
Highland EBCE Parents (N=43)	1	1	3	3	35	—	4.63	.90
Pacific Horizons Parents (N=68)	10	2	10	14	30	2	3.79	1.44

Resource Data

Time Reported in Participation. At the end of the year resource persons and persons within resource organizations who worked with students were asked to estimate the amount of time they had spent with EBCE students. The distribution of their replies are shown for each pilot site by Table 58 (data for Highland have been discussed previously and are reprinted from Table 12). In interpreting the data, it should be pointed out that a resource was asked to respond if the program had been explained to him/her and he/she had agreed to participate (in EBCE parlance, the resource was "developed") whether or not he/she actually had worked with a student. Also, no differentiation is made between a resource developed early in the year and available for a lengthy period and one developed near the end of the year. The data show a similarity in distribution between the group of respondents at Edison and Highland; both have medians close to 25 hours of participation. Respondents at Pacific Horizons show a substantially different distribution; the distribution median is approximately ten hours of participation and 75% report spending less than 30 hours in program participation.

Reasons for Participating. Resources were given a list of reasons given by resources in previous years for their participating in EBCE. They were asked to rate each item in terms of its importance to them. Table 59 gives the statistics for the responses received from resources from the three sites. There was general agreement among the respondents as to the item rankings. The three

TABLE 58

RESOURCES' ESTIMATE OF AMOUNT OF TIME SPENT IN EBCE RELATED ACTIVITIES

Hours	Highland N=62		Pacific Horizons N=32		Edison N=23	
	Frequency	Cum. Percent	Frequency	Cum. Percent	Frequency	Cum. Percent
0-9	16	26	12	38	8	35
10-19	12	45	7	59	2	43
20-29	6	55	5	75	3	57
30-39	3	60	0	75	2	65
40-49	6	69	3	84	0	65
50-59	3	74	0	84	1	70
60-69	4	81	3	94	1	74
70-79	3	85	0	94	1	78
80-89	1	87	1	97	0	78
90-99	0	87	0	97	1	83
100-199	5	95	0	97	2	91
200-600	3	100	1	100	2	100
Median	24.8		10.3		25.0	

TABLE 59

RESOURCES' RATING OF REASONS FOR PARTICIPATION IN THE EBCE PROGRAM

Reason 4-point scale 1=not important 4=very important	Highland N=67		Pacific Horizons N=35		Edison N=24		TOTAL N=126	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Giving students new learning experiences	3.67	.53	3.17	.92	3.48	.73	3.50	.73
Helping students grow and mature	3.58	.58	3.14	.94	3.39	.66	3.42	.73
Giving students career information	3.49	.61	3.31	.68	3.25	.85	3.40	.68
Increasing my understanding of youth	2.84	.90	2.65	.98	2.78	.90	2.77	.92
Participating in a new community program	2.85	.87	2.65	1.18	2.61	.78	2.75	.95
Increasing community awareness of organization	2.82	1.03	2.53	1.08	2.52	.90	2.69	1.02
Working with professional school staff	2.30	.94	2.09	1.04	1.67	.73	2.13	.96

most important reasons for participating were: (1) giving students new learning experiences; (2) helping students to grow and mature; and (3) giving students career information. Resources chose their primary reasons for participating as those items that deal with what they can offer students; secondary are those items that indicate benefits they (and their organizations) can receive from participation. Continuing contact with the school is of least interest to respondents.

Mean ratings (Table 59) by resources participating at the Highland site were highest of the three groups. This is consistent with the strong interest of the program staff there in learning about student-resource interaction (e.g., Highland maintained periodic staff-resource contact; the director made personal delivery and follow-up in order to leave and to collect the end-of-year resource questionnaire).

Value of Participation. Resources at each pilot site were asked to rate the value of participation in the EBCE program to themselves, to their organizations, and to students. They were given a four-point scale (from very undesirable to very desirable); Table 60 shows the means and standard deviations of the responses of resources from each pilot site. All ratings were very positive. All three rate the value of participation highest for the students. Again, ratings by the Highland participants are the highest of the three.

TABLE 60

RATING BY RESOURCES ON VALUE OF PARTICIPATION IN EBCE PROGRAM

Value of Participation 4-point scale 1=Undesirable 4=Very desirable	Highland N=68		Pacific Horizons N=34		Edison N=24		TOTAL N=126	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
To Students	3.58	.66	3.28	.89	3.35	.71	3.45	.74
To Self	3.49	.66	3.15	.78	3.17	.56	3.33	.69
To Organization	3.50	.64	3.03	.94	2.95	.79	3.27	.79

Perceptions of the EBCE Program. The resources responded to four questionnaire items relating to their perceptions of the EBCE programs (see Table 61 for the questions and response data). The first question probed for the degree their original conceptions of student activities matched the activities that actually occurred at their sites. The means (2.89 to 3.23 out of 4.0 possible) indicate some differences between expectation and actuality.

The second question (of Table 61) matched the expectation of time involvement with the actual time spent. There are noticeable differences across sites. Resources at Highland feel the time spent was close to what they expected. Resources at Pacific Horizons and Edison tended to feel that they had spent much less time with students than they had anticipated. Few resources felt that they had to put in much more time than planned; it may well be that many felt underused.

The two remaining questions of Table 61 ask for interest in continued participation and on feelings about recommending involvement to other potential resources. Most resources plan to continue in their roles; those at Highland were especially positive. Resources with all three programs were strong in their feeling that they would recommend to others participation as a resource.

TABLE 61

RESOURCES' PERCEPTIONS OF THE EBCE PROGRAM

ITEM Responses on a 4-point scale: 1=definitely no or definitely less; 4=definitely yes or definitely more	Resources at Site:	N	Frequencies					Mean	S.D.
			1	2	3	4	Omit		
1. Did the student activities that took place at your site fit the original understanding that you had of EBCE activities?	Highland	72	4	8	25	32	3	3.23	.88
	Pac. Horizons	34	2	3	12	12	5	3.17	.89
	Edison	26	1	8	10	7	0	2.89	.86
2. Has participation in EBCE activities taken more or less time than you originally expected?	Highland	72	12	27	26	4	3	2.32	.83
	Pac. Horizons	34	14	8	5	1	6	1.75	.89
	Edison	26	9	8	5	2	2	2.00	.98
3. Do you plan to continue to participate in the EBCE program?	Highland	72	0	4	14	52	2	3.69	.58
	Pac. Horizons	34	1	5	13	11	4	3.13	.82
	Edison	26	1	3	14	7	1	3.08	.76
4. Would you recommend to others that they become involved in the EBCE program?	Highland	72	1	1	13	56	1	3.75	.55
	Pac. Horizons	34	1	4	11	18	0	3.35	.81
	Edison	26	0	2	8	15	0	3.52	.65

DATA FOR OTHER SITES

In addition to the three pilot sites, three other programs operated during at least one semester of 1975-76 under the FWL-EBCE format. Evaluation of these sites was restricted to the collection of baseline information on students.

Demonstration Site: Far West High School, Oakland.

1975-76 was the first year that Far West High School operated under total control of the Oakland Unified School District. All staff members were employees of the district; only the director and secretary had experience in the program when the year began. Far West Laboratory provided training for the new staff during summer, 1975, and technical assistance to the program throughout the year.

Most of the students who attended Far West School the year before continued in the program when it was assimilated by the OUSD system. Average enrollment at Far West High School was approximately 200. Table 62 profiles the student population. Some information from the table is of special interest: (a) the school continued to recruit more females than males; (b) the ethnic mix of the student body was fairly representative of that of the community; (c) there were wide distributions of parents' educational background and work classifications; and (d) fewer than one-third (29%) of students emphasized education in their post high school plans, although almost one-half (46%) plan on pursuing academic course-work during the year following high school.

Plans for 1976-77 are to increase enrollment to 225 students.

Market-Demand Sites

Maynard Evans High School Community-Based Career Education (CBCE), Orlando. This program was initiated in spring, 1976, with six students. It provides a one-semester experience in community-based learning for seniors. As such, it represents a major adaptation of the FWL-EBCE model. One staff member is associated with the program. Table 63 provides information on the spring, 1976 students.

Plans for 1976-77 are to increase enrollment to 12 students.

TABLE 62
DESCRIPTION OF
FAR WEST HIGH SCHOOL PROGRAM

SETTING

Urban (city population approximately 400,000). Socio-economically and ethnically mixed with blacks the largest ethnic group. School district has 6 senior high school totalling approximately 12,000 students.

PROGRAM

Full-time, alternative school with grades 10-12. Open to students throughout the district. Primary emphasis is on providing meaningful alternatives to students who are turned off with regular classroom instruction. Seven LCs, skills specialist, resource analyst, director.

STUDENT DEMOGRAPHY

Number of students enrolled end of fall semester: 184

Grade	f	%
ninth	2	1
tenth	68	37
eleventh	70	38
twelfth	42	23
Sex		
male	63	34
female	120	65

Ethnic Group	f	%
American Indian	0	0
Black/Afro-American	116	64
Filipino	0	0
Chicano/Mexican-American	9	5
Puerto Rican	0	0
Other Latin-American	1	1
Oriental/Asian-American	3	2
White/Caucasian	34	19
Other	19	10

Median age of students (9-75): *16 year 2 months*

Parents' Education	Mother f	Mother %	Father f	Father %
Elementary school	4	2	7	4
Some high school training	29	17	31	19
High school diploma	63	36	63	38
Some college training	38	22	26	16
College degree	29	17	27	16
Some graduate school	1	1	5	3
Graduate school degree	9	5	8	5

Parents' Work Classification	Mother f	Mother %	Father f	Father %
1 Laborer, homemaker	48	32	19	13
2 Operative, service, military	20	14	34	24
3 Clerical, crafts, proprietor protective	35	23	47	33
4 Farmer, sales, technical	11	7	16	11
5 Administrative, professional	35	23	27	19

STUDENT PLANS AND ATTITUDES, FALL 1975

Education and work emphasis--one year after high school

	%
Going to school, but not working	6
Going to school, but working part time	23
Working, but going to school part time	22
Working, not going to school	42
Other plans	7

Educational program--one year after high school

	%
None	9
Apprenticeship, or on-the-job training	12
Vocational, technical, trade or business school	11
Technical or vocational courses at junior college	16
Academic courses at a junior college	15
Four year college or university	31
Other educational program	5

Attitude toward school	last year %	before last year %
1 Disliked almost everything about it	10	12
2 Disliked more than liked it	18	16
3 Liked/disliked it about equally	20	28
4 Liked it more than disliked it	25	24
5 Liked almost everything about it	26	21
Mean	3.38	3.26
Standard Deviation	1.33	1.29

TABLE 63
DESCRIPTION OF
MAYNARD EVANS HIGH SCHOOL CBCE PROGRAM

SETTING

Suburban (city population approximately 120,000). Predominantly white (80%) with substantial black representation (20%). District has 10 senior high school with nearly 20,000 students.

PROGRAM

Full-time program for 12th grade, open only to Evans High School students. Enrollment limited to one semester. One staff member.

STUDENT DEMOGRAPHY

Number of students in end of year group: *6*

Grade	f	%
ninth	0	0
tenth	0	0
eleventh	0	0
twelfth	6	100
Sex		
male	3	50
female	3	50

Ethnic Group	f	%
American Indian	0	0
Black/Afro-American	2	33
Filipino	0	0
Chicano/Mexican-American	0	0
Puerto Rican	0	0
Other Latin-American	0	0
Oriental/Asian-American	0	0
White/Caucasian	4	67
Other	0	0

Median age of students (9-75): *17 years 8 months*

Parents' Education	Mother f	Mother %	Father f	Father %
Elementary school	0	0	0	0
Some high school training	0	0	0	0
High school diploma	5	83	5	83
Some college training	0	0	1	17
College degree	1	17	0	0
Some graduate school	0	0	0	0
Graduate school degree	0	0	0	0

Parents' Work Classification	Mother f	Mother %	Father f	Father %
1 Laborer, homemaker	0	0	1	17
2 Operative, service, military	0	0	1	17
3 Clerical, crafts, proprietor protective	5	83	3	50
4 Farmer, sales, technical	0	0	1	17
5 Administrative, porfessional	1	17	0	0

STUDENTS PLANS AND ATTITUDES AT ENTRY (SPRING 1976)

Education and work emphasis--one year after high school

	%
Going to school, but not working	0
Going to school, but working part time	60
Working, but going to school part time	40
Working, not going to school	0
Other plans	0

Educational program--one year after high school

	%
None	0
Apprenticeship, or on-the-job training	0
Vocational, technical, trade or business school	17
Technical or vocational courses at junior college	17
Academic courses at a junior college	17
Four year college or university	33
Other educational program	17

Attitude toward school	last year %	before last year %
1 Disliked almost everything about it	0	33
2 Disliked more than liked it	0	17
3 Liked/disliked it about equally	50	0
4 Liked it more than disliked it	50	33
5 Liked almost everything about it	0	17
Mean	3.50	2.83
Standard Deviation	.50	1.22

Canyon High School EBCE, Saugus. This program began operation with the spring, 1976 semester. It provides a part-time learning alternative for students enrolled at Canyon High School. The program was implemented using the FWL-EBCE documents. The staff member implementing the model had extensive experience with educational innovation; he modified procedures to fit his perception of student needs, community environment, and time constraints. The program is an example of the adaptation of the FWL-EBCE model possible through responsible study of model design and community constraints.

Enrollment is limited to 20 students; a profile of the students is given by Table 64. Note that the program drew more females than males; that the parents' educational levels are relatively high; and that slightly more than one half of the students emphasize education in their immediate post high school plans. Students' attitude toward school was mixed, with the mean (2.85) slightly under the scale midpoint.

Plans for 1976-77 are to maintain the program at the same enrollment.

TABLE 64
DESCRIPTION OF
CANYON HIGH SCHOOL EBCE PROGRAM

SETTING

Suburban (one of a cluster of communities some 30 miles north of the Los Angeles basin). Population predominantly white. School district has three senior high schools totalling 4,700 students.

PROGRAM

Part-time, alternative program within the high school. Primary emphasis: complementing students' program with community-based learning experiences. Enrollment limited to Canyon High School students. One staff member.

STUDENT DEMOGRAPHY

Number of students in end of year group: *18*

Grade	f	%
ninth	0	0
tenth	1	6
eleventh	9	50
twelfth	8	44
Sex		
male	5	28
female	13	72

Ethnic Group	f	%
American indian	0	0
Black/Afro-American	0	0
Filipino	0	0
Chicano/Mexican-American	1	6
Puerto Rican	0	0
Other Latin-American	0	0
Oriental/Asian-American	0	0
White/Caucasian	15	83
Other	2	11

Median age of students (9-75): *16 years 9 months*

Parents' Education	Mother f	Mother %	Father f	Father %
Elementary school	0	0	0	0
Some high school training	2	11	2	11
High school diploma	8	44	3	17
Some college training	7	39	5	28
College degree	1	6	5	28
Some graduate school	0	0	2	11
Graduate school degree	0	0	1	6

Parents' Work Classification	Mother f	Mother %	Father f	Father %
1 Laborer, homemaker	3	18	1	6
2 Operative, service, military	3	18	2	11
3 Clerical, crafts, proprietor protective	4	23	7	39
4 Farmer, sales, technical	3	18	2	11
5 Aministrative, professional	4	23	6	33

STUDENT PLANS AND ATTITUDES AT ENTRY

Educational and work emphasis--one year after high school

	%
Going to school, but not working	6
Going to school, but working part time	50
Working, but going to school part time	22
Working, not going to school	17
Other plans	6

Educational program--one year after high school

	%
None	12
Apprenticeship, or on-the-job training	12
Vocational, technical, trade or business school	6
Technical or vocational courses at junior college	18
Academic courses at a junior college	6
Four year college or university	29
Other educational program	18

Attitude toward school	last year %	before last year %
1 Disliked almost everything about it	11	11
2 Disliked more than liked it	28	39
3 Liked/disliked it about equally	33	22
4 Liked it more than disliked it	17	22
5 Liked almost everything about it	11	6
Mean	2.89	2.72
Standard Deviation	1.18	1.13

FOLLOW-UP OF GRADUATES OF FAR WEST SCHOOL

In May, 1976, questionnaires were mailed to the 58 graduates of Far West School.* A second mailing was later sent to those persons who had not returned the questionnaire. Twenty-eight graduate questionnaires were completed and returned. Approximately one half of the students in each of the three graduating classes (1973-75) responded (see Table 65).

Current Activities and Future Plans

The current educational and work activities of FWS graduates are summarized in Table 66. Most (three out of four) of the 1973 graduates and most (eight out of twelve) of the 1974 graduates were going to school at least part-time. The table also summarizes the plans of the students for five years after high school graduation. Almost all (13 out of 16) of the 1973 and 1974 graduates feel they will still be in school at that time. The most recent (1975) graduates have fewer plans for school: five out of twelve were not enrolled in school; six do not plan to be in school after five years.

In Table 67, data on the type of educational or other training programs that FWS graduates reported attending during the 1975-76 school year are summarized and compared with their plans reported for the 1976-77 school year. More students were enrolled in a four-year college/university than any other program. The next largest number were those enrolled in an academic program at a community college. Enrollment at a four-year college was the most common plan of students for the 1976-77 year; as expected, community college enrollment was a less common plan for next year than for 1975-76 -- students will all have been out of high school for two years or more. Only six students reported that they did not attend school last year (or plan to this year), and three of these gained apprenticeship or on-the-job training and have similar plans for this

*Far West School was operated by FWL as the pilot program for the FWL-EBCE model from summer 1972 through spring 1975. The school was assimilated by the Oakland Unified School District in summer 1975; it is now the "demonstration site" for FWL-EBCE and is called Far West High School.

TABLE 65

NUMBER FROM EACH GRADUATING CLASS
RESPONDING TO GRADUATE QUESTIONNAIRE

GROUP	FAR WEST SCHOOL GRADUATES (N = 58)	
	Number of Questionnaires Sent	Number of Questionnaires Received
1973 Graduates	9	4
1974 Graduates	25	12
1975 Graduates	24	12
TOTAL	58	28

TABLE 66

CURRENT ACTIVITIES AND THOSE PLANNED FOR FIVE YEARS AFTER HIGH-SCHOOL GRADUATION:
1973-75 FAR WEST SCHOOL GRADUATES
(JUNE, 1976)

RESPONSE CATEGORY	CURRENT ACTIVITIES			PLANNED ACTIVITIES FOR FIVE YEARS AFTER HIGH SCHOOL GRADUATION		
	1973 Graduates (N = 4)	1974 Graduates (N = 12)	1975 Graduates (N = 12)	1973 Graduates (N = 4)	1974 Graduates (N = 12)	1975 Graduates (N = 12)
Going to School, Not Working	0	4	5	0	3	0
Mostly Going to School, But Working Part Time	2	4	0	2	4	3
Mostly Working, But Going To School Part Time	1	0	2	1	3	3
Working, Not Going to School	1	3	5	0	1	5
Other Than Going to School or Working	0	1	0	1	1	1

TABLE 67

ENROLLMENT BY GRADUATES IN EDUCATIONAL PROGRAMS
FOR CURRENT YEAR AND PLANS FOR COMING YEAR

EDUCATIONAL PROGRAM	FAR WEST SCHOOL GRADUATES (N=28)			
	The Last Year		Next Year	
	f	%	f	%
None	3	11	3	11
Apprenticeship or On-the-Job Training	3	11	3	11
Vocational, Technical, Trade or Business School	1	4	2	7
Technical or Vocational Classes into Junior College or Community College	3	11	3	11
Academic Courses at a Junior College or Community College	8	29	5	18
Four Year College or University	10	36	10	36
Other Educational Program	0	0	2	7

year. It is evident that many FWS graduates have continued to develop their skills through educational or training programs.

Perceptions of EBCE

As part of the questionnaire, graduates rated the helpfulness of EBCE to them in the same areas as were rated by students and parents of students at the pilot sites. The means, standard deviations, and ranking of the ratings by graduates are presented in Table 68. (Corresponding data for pilot site students and their parents were presented in Table 41 and Table 53, respectively.) Graduates saw the program as having been most helpful (mean 3.37 out of 4.0) to them in deciding what to do after high school. They also judged it very helpful in understanding self (mean 3.26) and in getting along with others (mean 3.22). The program was judged least helpful (although the mean ratings were still above scale midpoint) in helping to prepare for college (mean 2.85) and helping to prepare for work (mean 2.81). It may well be that graduates see, in retrospect, the value of developing planning skills, although while still in the program students focus on understanding themselves and on developing interpersonal skills.

TABLE 68

GRADUATES' PERCEPTION OF HELPFULNESS OF EBCE PROGRAM

ITEM 4-point scale from (1) = Strongly disagree to (4) = Strongly agree	Rank	Mean	S.D.
School helped plan future	1	3.37	.69
School helped understand self	2	3.26	.59
School helped to get along with others	3	3.22	.64
School helped prepare for college	4	2.85	.83
School helped prepare for work	5	2.81	.63

Graduates were asked to rate how much they felt that they had learned in the EBCE program in each of twelve learning areas; the same set of scales had been completed by students and parents at the pilot sites (Tables 6, 21, and 34). Table 69 presents the ranking of items for program graduates. Table 70 compares item ranking by graduates with item ranking by current students at the three pilot sites. Graduates, along with most current students, see improved skills in working with adults as the area where most was learned. Three other items placed high with all four groups: learning about careers, problem-solving, and accepting different people. These four items appear to represent a consensus among student participants on the core of the EBCE program. Other items appearing in the top six rankings were each chosen by only two sites and appear to represent differing strengths and program emphasis within the sites.

A final open-ended question asked graduates, "Looking back from where you are now, what did you learn in the career education program that has been useful to you?" Responses to this question were given by 27 of the 28 respondents. Of these, only one response was definitely negative in tone and referred entirely to what the writer found "unuseful" -- lack of emphasis on grammar, English, and math; this may be balanced by another student who found most useful "being able to understand why it's important to learn your main basic skills." A number of the former students felt that they had not learned more academically than they would have in another program and some regretted not having learned more about careers, given the opportunity, but in all cases, this seemed to be balanced by appreciation for what they had been able to gain in other ways. The areas of major "usefulness" are shown in Table 71. The most noticeable trend was an increased ability to understand and deal with the real world and to function independently and effectively (a total of 43 responses). This was supported to a lesser extent by increased self-knowledge (11 respondents) and career knowledge (seven respondents). Of itself, career knowledge was of less importance than other areas, but a number of the former students mentioned the importance to them of the resources and resource persons with whom they had contact during their EBCE experiences; it appears that graduates valued the resource experiences particularly for opportunities offered to acquire knowledge of the world of work and of adults rather than to acquire career knowledge.

TABLE 69

GRADUATES' RATINGS OF AMOUNT LEARNED IN EBCE PROGRAM

ITEM 4-point scale from (1) = nothing, to (4) = a lot	FAR WEST SCHOOL GRADUATES (N = 28)		
	Rank	Mean	S.D.
Improving skills working with adults	1	3.61	.50
Learning about careers and jobs	2	3.57	.57
Accepting many different ideas and backgrounds of people	3	3.39	.79
Improving skills working with other students	4	3.25	.84
Planning for a career or careers	5	3.21	.69
Thinking through and solving problems	6	3.14	.65
Improving listening and speaking skills	7	3.07	1.02
Learning job seeking skills	8	2.78	.93
Learning how to do a particular job	9	2.64	1.03
Improving writing skills	10	2.57	.88
Improving reading skills	11	2.11	.96
Improving math skills	12	1.96	1.17

TABLE 70

COMPARISON OF GRADUATES' AND PILOT SITE STUDENTS' TOP SIX RANKINGS OF LEARNING AREAS

LEARNING AREA	Highland N = 52	Pacific Horizons N = 73	Edison N = 32	FWS Graduates N = 28
Improving skill in working with adults	1	1	2.5	1
Learning about careers and jobs	3.5	5	1	2
Thinking through and solving problems	3.5	3.5	5	6
Accepting many different ideas and backgrounds of people	5	3.5	6	3
Improving listening and speaking skills	2	2		
Planning for a career or careers			2.5	5
Learning how to do a particular job	6		4	
Improving skills in working with other students		6		4

TABLE 71

GRADUATES' PERCEPTIONS OF WHAT WAS LEARNED IN THE EBCE PROGRAM THAT WAS CONSIDERED USEFUL

Looking back from where you are now, what did you learn in the Career Education program that has been useful to you?	FAR WEST SCHOOL GRADUATES (N = 26)	
	Frequency* of response	Percent
1. Knowing how to function as an independent person, make own decisions solve problems, achieve goals	16	26
2. Knowing how to communicate with others (especially adults) and how to work with and deal with adults in a variety of settings (work, authority positions, etc.)	16	26
3. Knowledge about dealing with the real world. What the real world is like. Survival skills. Job seeking skills.	11	18
4. Knowledge about self; recognizing own abilities and interests, developing skills.	11	18
5. Knowledge about careers.	7	12
Total Responses	61	
Mean Responses	2.3	

*Number of responses is greater than the number of respondents because each graduate's answer was credited in each separate "usefulness" area reported.

SUMMARY AND CONCLUSIONS

Program Features

1. When given a list of possible reasons for attending the EBCE program, at time of entry students listed the following as most important: to learn things I want to learn; to develop plans for after high school; to find out more about careers; to find out more about my own values, interests, needs and goals; and to have more responsibility and independence. They listed as least important: getting away from problems at previous schools; making new friends; having more individual attention; getting help in finding a job; and working with adults in the community.

2. At Highland EBCE, where most complete data on student-resource activity were available, resources reported that their most frequent activities with students were talking about jobs and careers, observing work activities, and working on student's projects. Sixty percent of the resources said EBCE students spent at least some time on-site working on academic skills. Although observing and talking about jobs took place at almost all sites, participating in work activities showed a wide range in frequency: 25% of the resources reported that students did not participate in work activity; 50% reported that students occasionally participated in work activity, but for less than 25% of their time at the site; and 25% reported that students spent over 25% of their time at the site participating in work activities.

3. Thirty percent of Highland EBCE students reported at least one learning experience with a resource that lasted more than 40 hours (an "investigation"). Fifty eight percent reported that their longest experiences with a resource was between 11 and 40 hours (i.e., an "exploration"). Twelve percent had no experiences with a resource exceeding ten hours (i.e., only "orientation"). FWL-EBCE guidelines require at least one "exploration" or "investigation" in each project completed by a student.

4. The median time of participation per resource (according to reports by resources) was about 25 hours at two pilot sites, and ten hours at the third. Most resources at one pilot reported time spent was about what they expected,

but most resources at the other sites reported time spent was less than they had expected. Few resources reported that they spent more time than they expected; indeed, it may well be that many resources felt under-used.

Program Implementation

1. The FWL-EBCE model can be implemented under a variety of administrative and physical structures: during 1975-76, it was embedded as a "school within a school" (Highland High School EBCE); given status as a department of a high school (Edison High School EBCE); and implemented as an autonomous alternative school (Pacific Horizons High School).

2. EBCE programs, when implemented, will contain variations from the FWL-EBCE model. Operating staff will modify the FWL-EBCE emphases (and to a lesser degree, its design) to meet local need and educational environment. The FWL-EBCE model is sufficiently flexible to allow such adaptation.

3. Implementation of full-time programs with high fidelity to the FWL-EBCE model was facilitated by periodic assistance to local staff by trained FWL consultants.

4. Evidence from the Saugus, California "market-demand" site indicates that implementation of FWL-EBCE, beginning with a small scale program, is possible without on-site technical assistance from FWL through careful study and use of the FWL-EBCE program documents.

5. Local staffs varied in ability to implement the community-based FWL-EBCE curriculum. Because local staff members had more experience in dealing with students than with people in the community, they usually felt themselves more effective in their interactions with students than in their interactions with resources.

6. Local staffs were aware of imperfections in their programs and actively sought advice and assistance from FWL in identifying causes and providing remedies. Local staffs were least satisfied with their program operations in the areas of "using program planning packages" and "preparing resources for activities with students."

Program Outcomes

1. The program can by used as a solution to a variety of local educational problems. For example, Highland EBCE provides a source of career orientation to college-bound students; Edison EBCE provides a program having appeal across ethnic lines to a school seeking ethnic balance; Pacific Horizons provides an alternative learning program to high school students turned off with the traditional school. In each case, evidence suggests the programs were successful in providing solutions to local problems.

2. Learning Coordinators within FWL-EBCE act as facilitators of student learning but they encourage the students to direct their own learning, to function independently, and to accept responsibility for the outcomes of their own decisions. EBCE students as a whole rated this approach highly; however, some Pacific Horizons students felt that they would have been more successful if the LCs had applied more pressure on them.

3. The principal reason given by resources for their participation was what they could offer students; much less important to them was any personal benefit. Most of the resources at all pilot sites plan to continue participation and would recommend participation to others.

4. At all three pilot sites, the major portion of credit was earned through completion of projects. Percentage of academic credit earned by students through projects varied by site from 60% to 80%. Students at Pacific Horizons and Highland EBCE increased their proportion of credits earned through projects as they spent more time in the programs.

5. Analyses of total credits earned by EBCE students showed no significant difference by grade at entry or length of time in the program.

6. A correlational study of Pacific Horizons students showed that those students entering the program with more credits earned (regardless of their age) tended to spend more time per week in the program and continued to earn more credits. It appears that age at entry is not a predictor of success, but that previous demonstrated ability to earn credits will be associated with continued achievement in the EBCE program. Old patterns of school failure may change extremely slowly even within the new structure of EBCE.

7. Twenty-seven (out of 68) students at Pacific Horizons felt that tying credits to completed projects instead of time spent in program activities had impeded their meeting graduation requirements. Twenty-four students expressed major criticisms of EBCE in the areas of credit assignment and use of projects; eleven of these students would probably not participate in EBCE again. However, many Pacific Horizons students were enrolled in the program before its adoption of the EBCE curriculum, and, therefore, did not choose specifically to take up the EBCE program. These facts clearly emphasize the necessity of providing potential students will full information about the FWL-EBCE curriculum, especially the method of earning credit.

8. Program goals for both the amount of students' overall program activity and community activity were met at Highland EBCE. At the other two pilot sites, the mean levels of activity (as reported by students) were slightly below the standards established. At Pacific Horizons, the amount of program activity reported was 50% above the legal minimum for continuation schools. Activities reported by students at Edison EBCE sometimes excluded those not related to EBCE, thus the reported figures are a low estimate. It appears that the FWL-EBCE standard for students -- the equivalent amount of productive learning time as would occur in the regular school program, with at least 30% spent in the community -- is feasible.

9. The three FWL-EBCE pilot programs enrolled 306 different students over the school year. There was an average enrollment of slightly over 200 students in the three pilot sites during spring, 1976. Eighty-four EBCE students graduated, and 89 transferred back to regular school. Only eight students dropped from high school during the year.

10. The majority of Far West School graduates from the years 1973 through 1975 responding to a mail survey are currently attending school at least part-time. Thirteen out of 16 graduates from the 1973-74 school year who responded plan to be in school still in five years; only five of the responding graduates from 1974-75 have such plans. Sixty-five percent of the responding graduates were enrolled last year in academic programs at either a junior college or a four-year college. It is evident that many graduates of the EBCE program have continued their self development through further education and training.

Student Outcomes

1. Although "working with adults in the community" was seen by students as one of the less important reasons for entering EBCE, when asked to rank areas of learning by the amount they had learned, students ranked this area highest. Four areas of learning were consistently ranked high by students at each pilot site as well as the group of FWL graduates. These areas were: improving skills in working with adults; learning about careers; improving problem-solving skills; and learning to accept people with different backgrounds and ideas. These four items represent a core of learning common to all pilot FWL-EBCE programs.

2. Students were asked at their entry into EBCE to rate how they liked school in the past year and in "the years before last year." At the end of the school year, they were asked to rate how they liked school "this year." The students at two sites, Highland and Pacific Horizons, showed significant differences between pre- and post-ratings favoring the EBCE program. The students at the third site, Edison, showed a positive attitude toward school at entry with only a slight positive increase in ratings at the end of the year. End-of-year attitude ratings for students at the first two sites were far higher than for students at the third -- indicating that the most dramatic changes in attitude toward school occur in groups who were intitally most negative.

3. At the end of the school year, students at the three pilot sites showed positive attitudes toward the learning objectives and program structure of EBCE; on a set of rating scales they responded positively to most items. They were least positive about items reflecting their long-term attitudes toward school and were most positive about items reflecting the independence given them in decision-making in the EBCE program. Group differences were noted among the sites in attitudes toward staff and peers and probably reflect the differences among the programs in administrative setting and structure.

4. When asked how they had changed most as a result of EBCE, students at Highland EBCE and Edison EBCE indicated self-growth (e.g., self-confidence, responsibility) and gains in interpersonal skills in that order; students at Pacific Horizons indicated the same areas, but in reverse order. Less commonly mentioned were academic growth and career/future planning.

5. Parents' ratings on ways that students had changed were highly positive for Highland EBCE parents and more moderately positive for Pacific Horizons parents (no data was available for Edison EBCE parents). Both groups of parents gave the lowest rating to "amount of school work done," perhaps because parents may not consider working with resources in the community as "school."

6. Parents, students, and graduates were asked to rate the usefulness of the EBCE program in five learning areas. There was general agreement that the program had been most useful in helping students to get along with others, to understand themselves, and to plan for the future; the program was rated somewhat less useful in preparing students for work and for college.

7. Students, at their entry into EBCE, had been asked to rate the usefulness of their previous programs in the same learning areas. Students' ratings of EBCE were significantly higher than their ratings of their previous programs except for "preparation for college," where differences were not significant at two of the three pilot sites. Overall, this shows an impressive degree of satisfaction in the EBCE program on the part of EBCE students.

8. At Highland EBCE and Edison EBCE, almost all students (only one or two exceptions) indicated that they would choose to participate in EBCE again, that they liked the way of learning in EBCE, and that they felt more motivated to learn in EBCE. Most students at Pacific Horizons agreed, but a small minority (approximately 10%) was negative in its view. Parents' attitude toward EBCE was in parallel: again, most were supportive, but a small group at Pacific Horizons (10%) were very critical and would not choose for their sons/daughters to attend if offered the decision again. This finding is consistent with the fact that the FWL-EBCE curriculum structure was emplaced at Pacific Horizons High School after the recruitment of students; therefore, many students there had volunteered for an essentially different program (but with a congruent set of objectives).

9. Previous FWL-EBCE graduates were asked what (if anything) they had learning in the EBCE program that had been useful to them after graduation. Twenty-six of 27 respondents mentioned areas of benefit; the negative respondent felt that there had been a lack of emphasis on basic skills. The most frequently mentioned areas of usefulness were "learning how better to relate to the adult world" and "learning how to function independently."